

**SELECTED TRACE-ELEMENT DATA FOR STREAMS
IN THE SOUTHERN YAMPA RIVER BASIN,
NORTHWESTERN COLORADO**

By Wendy S. Maura

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CONVERSION FACTORS

The inch-pound units used in this report may be converted to SI (International System) units by using the following conversion factors:

<i>Multiply inch-pound units</i>	<i>By</i>	<i>To obtain metric units</i>
acre-foot (acre-ft)	0.001233	cubic hectometer
cubic foot per second (ft ³ /s)	0.2832	cubic meter per second
square mile (mi ²)	2.590	square kilometer
ton, short, per acre-foot (ton/acre-ft)	1.119	kilogram per cubic hecto- meter
ton, short, per day (ton/d)	907.2	kilogram per day

Degree Celsius (°C) may be converted to degree Fahrenheit (°F) by using the following equation:

$$^{\circ}\text{F}=9/5^{\circ}\text{C}+32$$

The following terms and abbreviations also are used in this report:

- microgram per liter (μg/L)
- microsiemens per centimeter (μS/cm)
- milligram per liter (mg/L)

SELECTED TRACE-ELEMENT DATA FOR STREAMS IN THE SOUTHERN YAMPA
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ABSTRACT

Increases in coal mining in northwestern Colorado have increased concerns about the impact of mining on the chemical quality of surface water. An area of particular concern is in the southern part of the Yampa River basin. To identify the changes produced by mining in this area, it is necessary to determine the present water chemistry resulting from the geology, climate, and land use. Because few data were available, a program for the synoptic collection of water-quality data was developed, in which sampling sites were selected to determine the surface-water chemistry.

This study was begun in April 1982. Water-quality samples were collected from sites on continuously flowing streams where a large concentration of suspended material was present. Each selected site, from the Oak Creek drainage near Steamboat Springs on the east, to the surface-water gaging station on the Yampa River near Maybell on the west, was sampled repetitively as changes occurred in discharge and specific conductance. Water-quality data from surface-water gaging stations and other selected surface-water sampling sites in the study area for water years 1976 to 1982 are included in the report.

INTRODUCTION

Increasing demands for energy have resulted in a significant increase of coal production in Colorado, particularly in the Yampa River basin of northwestern Colorado. This development has increased concerns about the impacts of mining on the quality of surface water. To identify the possible changes in water quality produced by mining in this area, it is first necessary to determine the present water chemistry resulting from the geology, climate, and land use. A synoptic water-quality program was developed to assess the water chemistry of the Yampa River basin.

This study began in April 1982, in cooperation with the U.S. Bureau of Land Management. It was a continuation of a 1981 study (Maura, 1982) in which water-quality samples were collected to determine concentrations of the major dissolved constituents present in streams of this study area. The objective of this report is to make available the trace-element data collected for selected streams in this study area.

DESCRIPTION OF STUDY AREA

Data presented in this publication were collected from some of the sites sampled in the 1981 study (Maura, 1982). In that study, 26 sites were sampled

in the synoptic data-collection program. The criterion for selecting a stream for sampling was that the stream be flowing in April 1981.

In this study, 18 sites were chosen from the original 26 to collect trace-element data. The reduced number of sites results from an additional criterion that a site must have a large concentration of suspended material. In addition to these 18 sites sampled during the study period, 18 established surface-water gaging stations were selected that had similar trace-element data available. Locations of these established surface-water gaging stations and additional surface-water sampling sites are shown in figure 1.

The area of data collection was the southern part of the Yampa River basin between the confluence with Oak Creek upstream from Steamboat Springs, downstream to the surface-water gaging station, 09251000 Yampa River near Maybell. This downstream station was chosen as the western limit of the study area because it is included in the National Stream Quality Accounting Network (NASQAN), and it is a station for which a large number of water-quality analyses are available.

DESCRIPTION OF DATA

At each study site, water samples were collected as discharge decreased through the season. As flow decreased, suspended-sediment concentration generally decreased. When the sediment concentration was less than 100 mg/L, data collection was discontinued at the site.

The instantaneous discharge of the stream was measured at the time of each sample collection, and the onsite measurements of water temperature, pH, and specific conductance were recorded. Analyses of the water-quality samples were performed at the Denver Central Laboratory of the U.S. Geological Survey, Arvada, Colo.

The individual trace elements and suspended sediment properties analyzed, with units of measurement, are listed below:

Phosphorus, total (mg/L as P)
Aluminum, ($\mu\text{g}/\text{L}$ as Al)
Arsenic, ($\mu\text{g}/\text{L}$ as As)
Cadmium, ($\mu\text{g}/\text{L}$ as Cd)
Chromium, ($\mu\text{g}/\text{L}$ as Cr)
Cobalt, ($\mu\text{g}/\text{L}$ as Co)
Copper, ($\mu\text{g}/\text{L}$ as Cu)
Iron, ($\mu\text{g}/\text{L}$ as Fe)
Lead, ($\mu\text{g}/\text{L}$ as Pb)
Manganese, ($\mu\text{g}/\text{L}$ as Mn)
Mercury, ($\mu\text{g}/\text{L}$ as Hg)
Selenium, ($\mu\text{g}/\text{L}$ as Se)
Zinc, ($\mu\text{g}/\text{L}$ as Zn)
Sediment, suspended (mg/L)
Sediment, discharge, suspended (ton/d)

EXPLANATION

- ▲ SURFACE-WATER GAGING STATION
 - ▲ SURFACE-WATER MEASURING SITE WITH STAFF GAGE ONLY
 - ◆ DISCONTINUED SURFACE-WATER GAGING STATION
 - ▼ WATER-QUALITY STUDY SITE
 - ▽ WATER-QUALITY DATA
- Number is location number shown in tables 1 and 2

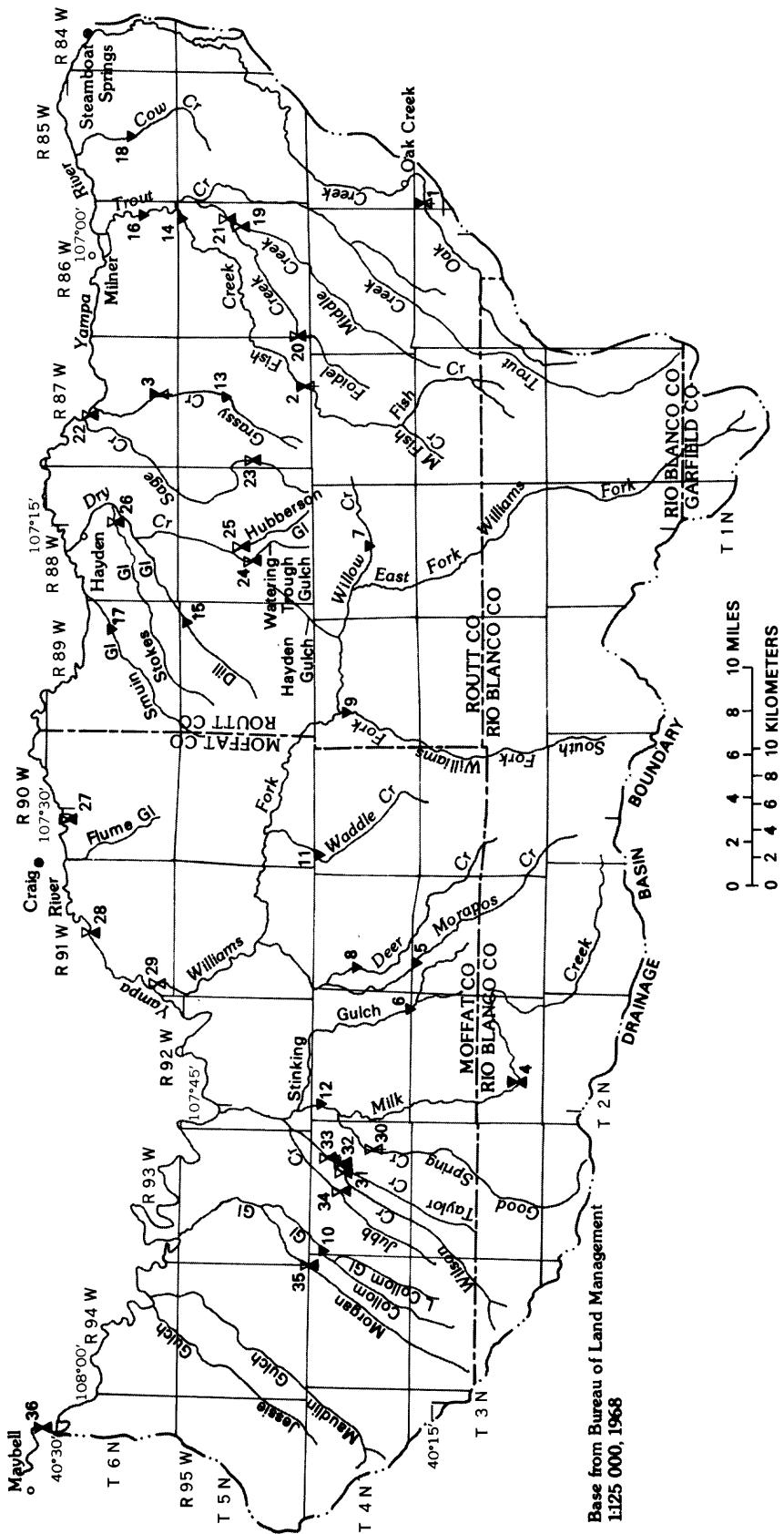


Figure 1.--Location of surface-water gaging stations and selected surface-water sampling sites in the study area.

These trace elements (except phosphorus) were analyzed for total, dissolved, and suspended concentrations.

The location of each water-quality sampling site is shown in figure 1, and a description of each site is given in table 1. Surface-water gaging stations in the study area where both sediment and water-quality data were already available are described in table 2. There are additional surface-water gaging stations in the study area that are not listed in table 2 or shown in figure 1 because they record only streamflow. Many stations listed in table 2 are on the main stem of the Yampa River or its principal tributary, the Williams Fork. These stations are part of the long-term gaging network of the U.S. Geological Survey. Many of the surface-water gaging stations on the smaller tributaries in the study area were operated in cooperation with U.S. Bureau of Land Management as part of the U.S. Geological Survey Coal Hydrology Program.

Data collected at the study sites are listed in table 3. Water-quality constituents and properties determined from samples collected at U.S. Geological Survey surface-water gaging stations are listed in table 4. Data are listed only for the same constituents collected at the study sites. Water-quality data collected prior to water year 1976, and for additional water-quality constituents, are available for some of these stations and are published annually in a series of the U.S. Geological Survey water-data reports entitled "Water Resources Data--Colorado."

A statistical summary of the constituents reported in tables 3 and 4 is given in table 5. This table contains a summary for six surface-water gaging stations located on the Yampa River, the Williams Fork, and Good Springs Creek. Many samples were collected at these six stations; therefore, only a summary of the data is given, which includes the number of samples, the mean, the standard deviation, and the range of each constituent for the period of record. The actual data are stored in WATSTORE, the U.S. Geological Survey's national water data storage and retrieval system.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in tables 1 through 5.

$^{\circ}\text{C}$ is degrees Celsius;
E is estimated;
 ft^3/s is cubic feet per second;
 $\mu\text{S}/\text{cm}$ is microsiemens per centimeter;
 mg/L is milligrams per liter;
N is number of water-quality samples;
ND is not determined;
 mi^2 is square miles; and
 ton/d is tons per day.

REFERENCES

- Maura, W.S., 1982, Water-quality data for streams in the southern Yampa River basin, Northwestern Colorado: U.S. Geological Survey Open-File Report 82-1017, 112 p.
- U.S. Geological Survey, 1976, Water resources data for Colorado, water year 1976, Volume 2. Colorado River Basin: U.S. Geological Survey Water-Data Report CO-76-2, available only from National Technical Information Service, Springfield, Va., as PB-278780.
- U.S. Geological Survey, issued annually, Water resources data for Colorado (for water years 1977-1981), Volume 3. Dolores River basin, Green River basin, and San Juan River basin: U.S. Geological Survey Water-Data Reports CO-77-3, CO-78-3, CO-79-3, CO-80-3, CO-81-3, CO-82-3, available only from National Technical Information Service, Springfield, Va., as PB-293522, PB80-119969, PB80-217979, PB82-202045, and PB83-124446.

Table 1.--Water-quality study sites in the southern Yampa River basin

Location number in figure 1	Station number	Station name	Lat- i- tude	Long- i- tude	Drain- age area (mi ²)
1	09238000	Oak Creek near Oak Creek	40 14 38	107 00 53	14.0
2	09244100	Fish Creek near Milner	40 20 03	107 08 19	34.5
3	09244300	Grassy Creek near Mount Harris	40 26 49	107 08 42	25.8
4	09250000	Milk Creek near Thornburgh	40 11 37	107 43 54	65.0
5	401601107375400	Morapos Creek near Iles Grove	40 16 01	107 37 54	16.8
6	401601107395300	Stinking Gulch near Thornburgh	40 16 01	107 39 53	8.43
7	401747107161600	Willow Creek near Duncley	40 17 47	107 16 16	19.6
8	401829107375600	Deer Creek near Hamilton	40 18 29	107 37 56	27.9
9	401857107243500	South Fork of Williams Fork at mouth near Pagoda	40 18 57	107 24 35	56.6
10	401925107523500	Collom Gulch near Axial	40 19 25	107 52 35	12.8
11	401944107322900	Waddle Creek near Hamilton	40 19 44	107 32 29	16.3
12	401948107445600	Milk Creek near Iles Grove	40 19 48	107 44 56	134
13	402330107082000	Grassy Creek at Grassy Gap	40 23 30	107 08 20	5.52
14	402530106585700	Fish Creek at mouth near Milner	40 25 30	106 58 57	77.9
15	402605107181500	Dill Gulch near Hayden	40 26 05	107 18 15	9.55
16	402720106591200	Trout Creek above Milner	40 27 20	106 59 12	110
17	402829107193700	Smuin Gulch near Hayden	40 28 29	107 19 37	11.3
18	402836106550100	Cow Creek near Steamboat Springs	40 28 36	106 55 01	14.4

Table 2.--Surface-water gaging stations in the southern Yampa River basin
where water-quality data are collected

Location number in figure 1	Station number	Station name	Lat- i- tude	Long- i- tude	Drain- age area (mi ²)
19	09243700	Middle Creek near Oak Creek	40 23	106 59	33 23.5
20	09243800	Foidel Creek near Oak Creek	40 20	107 05	04 8.61
21	09243900	Foidel Creek at mouth, near Oak Creek	40 23	106 59	39 17.5
22	09244410	Yampa River below diversion, near Hayden	40 29	107 09	33 1430
23	09244415	Sage Creek above Sage Creek Reservoir, near Hayden	40 23	107 11	34 4.17
24	09244460	Watering Trough Gulch near Hayden	40 22	107 16	49 2.65
25	09244464	Hubberson Gulch near Hayden	40 23	107 16	15 8.08
26	09244470	Stokes Gulch near Hayden	40 28	107 14	47 13.6
27	09246550	Yampa River below Elkhead Creek near Craig	40 29	107 30	34 --
28	09247600	Yampa River below Craig	40 29	107 36	23 --
29	09249750	Williams Fork at mouth, near Hamilton	40 26	107 38	50 --
30	09250400	Good Spring Creek at Axial	40 17	107 47	22 40.0
31	09250507	Wilson Creek above Taylor Creek near Axial	40 18	107 47	58 20.0
32	09250510	Taylor Creek at mouth near Axial	40 18	107 47	57 7.22
33	09250600	Wilson Creek near Axial	40 18	107 47	50 27.4
34	09250610	Jubb Creek near Axial	40 18	107 49	18 7.53
35	09250700	Morgan Gulch near Axial	40 20	107 53	06 25.6
36	09251000	Yampa River near Maybell	40 30	108 01	45 3410

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin

09238000 Oak Creek near Oak Creek

Water-quality data, water year October 1975 to September 1976

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temperature (°C) (°F)	Phosphorus, total (mg/L as P)	Arsenic, total (µg/L as As)	Arsenic, sus- pended total (µg/L as As)	Arsenic, dis- solved (µg/L as As)	Cadmium, total (µg/L as Cd)	Cadmium, sus- pended recoverable (µg/L as Cd)
Jun 06---	16	220	8.3	12.0	0.040	1	<1	1	<20	<10
Jun 06---	--	<100	<50	--	<20	<8	2	710	540	<8

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

09238000 Oak Creek near Oak Creek

Water-quality data, water year October 1975 to September 1976

Date	Lead,			Manga-			Mercury,		
	Iron, total dis- solved ($\mu\text{g/L}$ as Fe)	sus- pended reco- vable ($\mu\text{g/L}$ as Pb)	Lead, total reco- vable ($\mu\text{g/L}$ as Pb)	nese, total solved erable ($\mu\text{g/L}$ as Pb)	sus- pended reco- vable ($\mu\text{g/L}$ as Mn)	nese, total solved erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total solved erable ($\mu\text{g/L}$ as Hg)	Mercury, total reco- vable ($\mu\text{g/L}$ as Hg)	
Jun 06---	170	<200	<100	--	30	30	<10	<0.5	0.2
Jun 06---	<0.5	<1	0	<1	<20	0	20	9	0.39

Table 3.-Water-quality data collected at study sites in the southern Yampa River basin--Continued

09244100 Fish Creek near Milner
Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH	(standard units)	Temper- ature (°C)	Phos- phorus, total (as P)	Alum- inum, total	Cadmium, total	Chro- mium, total	Cobalt, total
			($\mu\text{S}/\text{cm}$)	(°C)	(mg/L)	recoverable ($\mu\text{g}/\text{L}$ as Al)	Arsenic, total ($\mu\text{g}/\text{L}$ as As)	recoverable ($\mu\text{g}/\text{L}$ as Cd)	recoverable ($\mu\text{g}/\text{L}$ as Cr)	recoverable ($\mu\text{g}/\text{L}$ as Co)
Apr 15---	37	431	7.9	5.0	--	12,000	3	<1	11	8
27---	51	367	8.4	4.0	0.091	3,500	2	<1	6	1
29---	66	339	8.1	3.0	.165	4,500	2	<1	4	2
<hr/>										
10										
Date	Copper, total recover- able ($\mu\text{g}/\text{L}$ as Cu)	Iron, total recover- able ($\mu\text{g}/\text{L}$ as Fe)	Lead, total recover- able ($\mu\text{g}/\text{L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g}/\text{L}$ as Mn)	Mercury, total recover- able ($\mu\text{g}/\text{L}$ as Hg)	Sel- nium, total recover- able ($\mu\text{g}/\text{L}$ as Se)	Zinc, total recover- able ($\mu\text{g}/\text{L}$ as Zn)	Sedi- ment, sus- pended (mg/L)	Sedi- ment, sus- pended (ton/d)	
Apr 15---	16	22,000	5	520	0.1	2	130	557	56	
27---	7	5,800	4	140	.6	1	30	323	44	
29---	9	7,600	3	170	.1	1	40	401	71	

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

09244300 Grassy Creek near Mount Harris

Water-quality data, water year October 1981 to September 1982

Date	Stream- flow, instant- aneous (ft ³ /s)	Spe- cific con- duct- ance (µS/cm)	pH (stand- ard units)	Temper- ature (°C)	Alum- inum,		Arsenic,		Cadmium,	
					total dis- solvable (µg/L as Al)	reco- vable (µg/L as Al)	total dis- solvable (µg/L as As)	total dis- solvable (µg/L as As)	total dis- solvable (µg/L as Cd)	total dis- solvable (µg/L as Cd)
Apr 01----	9.6	2150	7.9	6.0	--	5,400	40	2	1	<1
14----	93	812	7.8	11.0	--	68,000	--	8	--	--
27----	24	1620	8.3	10.0	0.216	17,000	--	3	--	--
<hr/>										
Date	Chro- mium, total reco- vable (µg/L as Cr)	Chro- mium, total reco- vable (µg/L as Cr)	Cobalt, total reco- vable (µg/L as Co)	Cobalt, total reco- vable (µg/L as Co)	Copper, total reco- vable (µg/L as Cu)	Copper, total reco- vable (µg/L as Cu)	Iron, total reco- vable (µg/L as Fe)	Iron, total reco- vable (µg/L as Fe)	Lead, total reco- vable (µg/L as Pb)	Lead, total reco- vable (µg/L as Pb)
Apr 01----	6	<1	2	<1	9	2	5,600	110	3	1
14----	--	--	10	--	80	--	78,000	--	3	--
27----	31	--	5	--	23	--	20,000	--	4	--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

09244300 Grassy Creek near Mount Harris							
Water-quality data, water year October 1981 to September 1982							
Date	Manganese, total (µg/L as Mn)	Manganese, dis- recoverable (µg/L as Mn)	Mercury, total (µg/L as Hg)	Mercury, dis- recoverable (µg/L as Hg)	Selenium, total (µg/L as Se)	Selenium, dis- solved (µg/L as Zn)	Zinc, total (µg/L as Zn)
Apr 01---	100	40	0.1	<0.1	21	19	30
14---	1300	--	.1	--	10	--	340
27---	270	--	.5	--	10	--	100
						--	--
						850	3990
							1000
							55
							4.8

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

09250000 Milk Creek near Thornburgh

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (μS/cm)	Temper- ature (°C)	Alum- inum, total	Cadmium, total	Chro- mium, total	Cobalt, total
				Phos- phorus, total	Arsenic, total	recov- erable	recov- erable
				(mg/L as P)	(μg/L as As)	(μg/L as Cd)	(μg/L as Cr)
May 18---	266	380	10.0	0.328	7300	3	1
						21	7
Date	Copper, total	Iron, total	Lead, total	Manga- nese, total	Mercury, total	Sele- nium, total	Zinc, total
	recover- able (μg/L as Cu)	recover- able (μg/L as Fe)	recover- able (μg/L as Pb)	recover- able (μg/L as Mn)	recover- able (μg/L as Hg)	recover- able (μg/L as Se)	recover- able (μg/L as Zn)
May 18---	19	14,000	8	220	0.2	2	80
						870	625

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum- inum, total, dis- solvable (µg/L as Al)	Phos- phorus, total (mg/L as P)	Alum- inum, total, dis- solvable (µg/L as Al)	Arsenic, total, dis- solvable (µg/L as As)	Cadmium, total, dis- solvable (µg/L as Cd)	
May	04---	122	232	7.8	5.0	.177	6900	80	4	<1
	06---	67	263	7.6	1.0	.149	3500	--	1	<1
	13---	41	314	7.6	--	.081	1900	--	1	--
	14									
Apr	16---	13	--	6	--	19	--	16,000	--	6
		1	--	<1	--	3	--	890	--	<1
	23---	10	<1	5	<5	13	<5	13,000	100	4
		5	--	1	--	8	--	5,800	--	2
	May	6	--	1	--	6	--	3,100	--	2
Chro-	mium, total, dis- solvable (µg/L as Cr)	Chro- mium, total, dis- solvable (µg/L as Cr)	Cobalt, total, dis- solvable (µg/L as Co)	Cobalt, total, dis- solvable (µg/L as Co)	Copper, total, dis- solvable (µg/L as Cu)	Copper, total, dis- solvable (µg/L as Cu)	Copper, total, dis- solvable (µg/L as Cu)	Iron, total, dis- solvable (µg/L as Fe)	Lead, total, dis- solvable (µg/L as Pb)	
		16---	13	--	6	--	19	--	16,000	--
	04---	23---	1	--	<1	--	3	--	890	--
		06---	10	<1	5	<5	13	<5	13,000	100
	13---	5	--	1	--	8	--	5,800	--	2
		6	--	1	--	6	--	3,100	--	2

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401601107375400 Morapos Creek near Illes Grove

Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total recoverable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, total soluble ($\mu\text{g/L}$ as Hg)	Mercury, dis- soluble ($\mu\text{g/L}$ as Se)	Selenium, total soluble ($\mu\text{g/L}$ as Se)	Seleni- um, dis- soluble ($\mu\text{g/L}$ as Zn)	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Zinc, dis- soluble ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Apr 16---	480	--	0.1	--	2	--	80	--	864
23---	40	--	.1	--	1	--	20	--	42
May 04---	300	35	.1	<.1	1	<1	70	5	865
06---	130	--	.1	--	<1	--	40	--	404
13---	90	--	.4	--	1	--	30	--	172
									19

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401601107395300 Stinking Gulch near Thornburgh									
Water-quality data, water year October 1975 to September 1976									
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper-ature (°C)	Phos-phorus, total (mg/L as P)	Arsenic, total (µg/L as As)	Arsenic, suspended (µg/L as As)	Cadmium, total (µg/L as Cd)	Cadmium, suspended (µg/L as Cd)
Dec 03----	0.83	2200	8.3	0.0	<0.010	6	6	<1	<20
Mar 01----	7.0	745	8.2	.5	.050	340	340	<1	20
Jun 07----	10	625	8.6	19.5	.620	12	11	1	<20
Aug 30----	.38	3900	8.5	21.0	.050	1	<1	1	<20
16									
Dec 03----	Cobalt, total dissolved (µg/L as Cd)	Cobalt, suspended (µg/L as Co)	Cobalt, total dissolved (µg/L as Co)	Copper, total dissolved (µg/L as Cu)	Copper, suspended (µg/L as Cu)	Copper, total dissolved (µg/L as Cu)	Copper, suspended (µg/L as Cu)	Iron, total dissolved (µg/L as Fe)	Iron, suspended (µg/L as Fe)
Mar 01----	<2	100	99	<2	<20	6	4	6,300	6,200
Jun 07----	<2	150	150	--	270	270	4	260,000	260,000
Aug 30----	--	<100	<50	--	20	18	2	16,000	16,000
	--	<100	<50	--	20	19	<2	1,200	1,200

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401601107395300 Stinking Gulch near Thornburgh										
Water-quality data, water year October 1975 to September 1976										
Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe) ($\mu\text{g/L}$ as Pb)	Lead,			Manga- nese,			Manga- nese,		
		sus- pended	total	Lead, recov- erable	total	recov- erable	solved	total	recov- erable	mercury as Hg)
Dec 03---	50	<200	<96	4	210	150	60	<0.5	0.1	
Mar 01---	110	400	400	2	4200	4200	40	<.5	.4	
Jun 07---	70	<200	<100	--	200	190	<10	<.5	.0	
Aug 30---	30	<200	<100	--	180	30	150	<.5	.0	
 17										
Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended	Zinc, total ($\mu\text{g/L}$ as Se)	Sel- nium, dis- solved	Zinc, recov- erable	Zinc, solved	Sedi- ment, sus- pended	Sedi- ment, dis- charge, sus- pended	
								($\mu\text{g/L}$ as Zn)	(ton/d)	
Dec 03---	<0.5	28	1	27	50	10	40	1,020	2.3	
Mar 01---	<.5	11	0	11	1400	1400	<20	16,500	311	
Jun 07---	<.5	7	5	2	100	100	--	796	21	
Aug 30---	<.5	42	0	42	20	10	<20	158	.16	

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

401601107395300 Stinking Gulch near Thornburgh
Water-quality data, water year October 1981 to September

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (stand- ard units)	Temper- ature (°C)	Phos- phorus, total (mg/L as P)	Alum- inum, total recov- erable (µg/L as Al)	Arsenic, total solvable (µg/L as As)	Cadmium, total recoverable (µg/L as Cd)	Arsenic, total solvable (µg/L as As)	Cadmium, total recoverable (µg/L as Cd)
Date	Chro- mium, total recover- able (µg/L as Cr)	Cobalt, total solvable (µg/L as Co)	Copper, total solvable (µg/L as Cu)	Iron, total solvable (µg/L as Fe)	Lead, total solvable (µg/L as Pb)	Lead, total solvable (µg/L as Pb)	Lead, total solvable (µg/L as Pb)	Lead, total solvable (µg/L as Pb)	Lead, total solvable (µg/L as Pb)	Lead, total solvable (µg/L as Pb)
Mar 25---	2.8	1450	8.4	7.0	--	8,600	--	3	--	<1
Apr 15---	13	637	8.3	--	--	16,000	--	4	--	<1
23---	11	624	8.3	6.5	0.456	9,100	--	2	--	<1
May 05---	11	552	8.0	8.0	.211	5,600	30	2	1	<1
Mar 25---	20	--	5	--	19	--	15,000	--	5	--
Apr 15---	14	--	10	--	34	--	34,000	--	3	--
23---	11	--	6	--	21	--	17,000	--	5	--
May 05---	7	<1	4	<1	12	1	11,000	31	4	1

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401601107395300 Stinking Gulch near Thornburgh

Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total (µg/L as Mn)	Manga-nese, dis-recoverable (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)	Selenium, total dissolved (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Zinc, total dissolved (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)	Sediment, dis-charged suspended (ton/d)
Mar 25---	200	--	0.1	--	10	--	90	--	648 4.9
Apr 15---	510	--	.1	--	6	--	170	--	1750 61
23---	260	--	.1	--	5	--	100	--	942 28
May 05---	190	11	.1	<.1	6	5	60	9	523 16

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401747107161600 Willow Creek near Duncley

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand- ard units)	Temper- ature ($^{\circ}\text{C}$)	Phos- phorus, total (mg/L as P)	Alum- inum, total, recover- able (mg/L as Al)	Alum- inum, total, recover- able (mg/L as As)	Arsenic, total, solved ($\text{\mu g}/\text{L}$ as As)	Arsenic, total, solved ($\text{\mu g}/\text{L}$ as As)	Cadmium, total, recover- able ($\text{\mu g}/\text{L}$ as Cd)	Cadmium, total, solved ($\text{\mu g}/\text{L}$ as Cd)	
May 05---	65	335	8.0	6.5	0.289	6100	20	3	1	1	<1
13---	76	350	7.6	1.5	.069	4200	--	2	--	<1	--
<hr/>											
May 05---	11	<1	5	<1	15	2	13,000	61	4	<1	
13---	8	--	3	--	10	--	7,800	--	4	--	

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401747107161600 Willow Creek near Duncley

Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total soluble ($\mu\text{g/L}$ as Mn)	Manga-nese, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, total soluble ($\mu\text{g/L}$ as Hg)	Mercury, dis-recoverable ($\mu\text{g/L}$ as Hg)	Selenium, total soluble ($\mu\text{g/L}$ as Se)	Selenium, dis-solved ($\mu\text{g/L}$ as Zn)	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Sediment, disolved suspended (ton/d)
May 05---	210	19	0.2	<0.1	4	3	80	16
13---	130	--	.2	--	2	--	60	--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401829107375600 Deer Creek near Hamilton						
Water-quality data, water year October 1981 to September 1982						
Date	Specific conductance (ft ³ /s)	pH	(stand ard units)	Temper-ature (°C)	Phos- phorus, total (mg/L as P)	Alum- inum, total, recov- erable (µg/L as Al)
Apr 16---	13	576	8.2	5.0	--	5,200
	23---	621	8.1	5.0	0.638	3,000
May 04---	83	331	7.7	5.0	.195	35,000
	13---	54	430	1.0	.914	14,000
22						20
						11
Apr 16---						1
						6
May 04---						--
						1
13---						--
						1
Chro- mium, total, dis- solved (µg/L as Cr)						
Cobalt, total, recov- erable (µg/L as Co)						
Copper, total, recov- erable (µg/L as Cu)						
Iron, total, recov- erable (µg/L as Fe)						
Lead, total, recov- erable (µg/L as Pb)						
Apr 16---	10	--	3	--	12	--
	23---	8	--	2	8	--
May 04---	22	<1	10	<1	80	1
	13---	--	9	--	29	--
22						10,000
						5,500
May 04---						71,000
						29,000
13---						--
						5
Apr 16---						2
						5
May 04---						3
						--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401829107375600 Deer Creek near Hamilton									
Water-quality data, water year October 1981 to September 1982									
Date	Manga-nese, total	Manga-nese, dis-recoverable	Mercury, total	Mercury, dis-solved	Selenium, total	Selenium, dis-solved	Zinc, total	Zinc, dis-solved	Sediment, suspended
Apr 16---	270	--	0.1	--	2	--	60	--	553
23---	150	--	.1	--	1	--	30	--	287
May 04---	1600	47	.2	<0.1	3	1	330	13	6170
13---	550	--	.2	--	1	--	140	--	2500
									364

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401857107243500 South Fork of Williams Fork at mouth near Pagoda
 Water-quality data, water year October 1981 to September 1982

Date	Specific conductance (ft ³ /s)	pH (stand ard units)	Temper-ature (°C)	Phos-phorus, total (mg/L as P)	Alum-inum, total	Arsenic, total	Arsenic, dis-solved (µg/L as As)	Cadmium, total	Cadmium, dis-solved (µg/L as Cd)
May 18---	388	261	7.7	6.0	0.158	3300	70	1	<1
May 18---	6	<1	2	<1	45	1	6500	97	13

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401857107243500 South Fork of Williams Fork at mouth near Pagoda
 Water-quality data, water year October 1981 to September 1982

Date	Manganese, total dis- solvable ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Mercury, total recov- erable ($\mu\text{g/L}$ as Hg)	Selen- ium, dis- solved ($\mu\text{g/L}$ as Se)	Selen- ium, total solvable ($\mu\text{g/L}$ as Se)	Zinc, total solvable ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
May 18---	110	7	0.1 <0.1	1 1	40 49	377 395	

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

401925107523500 Collom Gulch near Axial

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Phos- phorus, total (mg/L as P)	Alum- inum, total dis- solvable (µg/L as Al)	Arsenic, total dis- solvable (µg/L as As)	Cadmium, total dis- solvable (µg/L as Cd)				
May 04---	1.4	744	8.2	13.0	0.059	3000	20	2	1	<1	<1	<1
May 04---	3	<1	2	<1	10	2	4500	17	4	2		

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

Date	Manganese, total recoverable ($\mu\text{g/L}$ as Mn)	Manganese, dis- solvable ($\mu\text{g/L}$ as Mn)	Mercury, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selenium, total solved ($\mu\text{g/L}$ as Se)	Selenium, dis- solved ($\mu\text{g/L}$ as Zn)	Zinc, total recoverable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sediment, dis- solved (mg/L)	Sediment, sus- pended (ton/d)
May 04---	300	79	0.1	<0.1	3	3	40	8	297	1.1

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401944107322900 Waddle Creek near Hamilton

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH	(stand- ard units)	Temper- ature (°C)	Phos- phorus, total (mg/L as P)	Alum- inum, total recov- erable (µg/L as Al)	Arsenic, total dis- solved (µg/L as As)	Cadmium, total dis- solved (µg/L as Cd)	
			(stand- ard units)							
May 06---	16	536	8.1	9.0	0.413	9,400	20	4	1	<1
13---	22	565	7.8	5.0	.374	10,000	--	4	--	--
19---	19	582	7.9	9.5	.850	4,000	--	2	--	--
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Chro- mium, total	Chro- mium, dis- solved	Cobalt, total	Cobalt, recov- erable		Copper, total	Copper, recov- erable		Iron, total	Lead, total	Lead, dis- solved
(µg/L as Cr)	(µg/L as Cr)	(µg/L as Co)	(µg/L as Co)		(µg/L as Cu)	(µg/L as Cu)		(µg/L as Fe)	(µg/L as Pb)	(µg/L as Pb)
May 06---	14	<1	9	<1	27	1	22,000	19	8	1
13---	12	--	8	--	25	--	22,000	--	7	--
19---	21	--	3	--	10	--	7,800	--	5	--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401944107322900 Waddle Creek near Hamilton							
Water-quality data, water year October 1981 to September 1982							
Date	Manga-nese, total	Manga-nese, dissolved	Mercury, total	Mercury, dissolved	Selenium, total	Selenium, dissolved	Zinc, total
May 06---	780	55	0.1	<0.1	1	1	120
13---	720	--	.2	--	1	--	120
19---	260	--	.1	--	1	--	60
							--
							579
							30
							2690
							160
							120
							2780
							160
							30

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

401948107445600 Milk Creek near Iles Grove						
Water-quality data, water year October 1981 to September 1982						
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper-ature (°C)	Phos-phorus, total (mg/L as P)	Alum-inum, total recoverable ($\mu\text{g}/\text{L}$ as Al)
Apr 23---	95	539	7.9	8.0	0.188	9,100
May 18--30	297	402	7.6	9.5	2.90	27,000
						--
						3
						--
						<1
						<1
						<1
Chro-mium, total, dissolved (µg/L as Cr)						
Date	Chro-mium, total, dissolved (µg/L as Cr)	Cobalt, total, recoverable (µg/L as Co)	Cobalt, total, recoverable (µg/L as Co)	Copper, total, recoverable (µg/L as Cu)	Copper, total, recoverable (µg/L as Cu)	Iron, total, recoverable (µg/L as Fe)
Apr 23---	9	--	6	--	19	--
May 18--	12	<1	10	1	65	3
						16,000
						--
						5
						--
Lead, total, dissolved (µg/L as Pb)						
Date	Lead, total, dissolved (µg/L as Pb)	Iron, total, recoverable (µg/L as Fe)	Iron, total, recoverable (µg/L as Fe)	Arsenic, total solved (µg/L as As)	Arsenic, total solved (µg/L as As)	Cadmium, total solved (µg/L as Cd)
Apr 23---	9	--	6	--	16,000	--
May 18--	12	<1	10	1	65	3
						58,000
						72
						6
						2

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

401948107445600 Milk Creek near Illes Grove

Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total recoverable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recoverable ($\mu\text{g/L}$ as Mn)	Mercury, total soluble ($\mu\text{g/L}$ as Hg)	Mercury, dis-solved ($\mu\text{g/L}$ as Hg)	Selenium, total soluble ($\mu\text{g/L}$ as Se)	Seleni-um, dis-solved ($\mu\text{g/L}$ as Se)	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Zinc, dis-solved ($\mu\text{g/L}$ as Zn)	Sedi-ment, charge, sus-pended (ton/d)
Apr 23---	350	--	0.1	--	5	--	90	--	1950
May 18---	960	4	.3	<0.1	12	3	310	30	3440

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402330107082000 Grassy Creek at Grassy Gap

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum-			Cadmium,		
					Phos- phorus, total (mg/L as P)	dis- solvable (µg/L as Al)	inum, total recov- erable	Arsenic, total solvable (µg/L as As)	total solvable (µg/L as As)	Cadmium, total solvable (µg/L as Cd)
Apr 01---	1.2	746	7.9	6.0	--	2,800	--	1	--	<1
14---	15	192	7.2	2.0	--	18,000	--	4	--	<1
21---	2.3	593	7.8	5.5	0.046	1,400	--	1	--	<1
27---	5.4	447	7.7	11.0	.226	6,400	60	2	1	<1
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Date	Chro- mium, total recover- able (µg/L as Cr)	Chro- mium, dis- solvable (µg/L as Cr)	Cobalt, total recover- able (µg/L as Co)	Cobalt, total recover- able (µg/L as Co)	Copper, total recover- able (µg/L as Cu)	Copper, total recover- able (µg/L as Cu)	Copper, total recover- able (µg/L as Cu)	Iron, total recover- able (µg/L as Fe)	Lead, total recover- able (µg/L as Pb)	Lead, total recover- able (µg/L as Pb)
Apr 01---	6	--	<10	--	10	--	--	3,400	--	<10
14---	12	--	5	--	26	--	--	23,000	--	4
21---	3	--	<1	--	4	--	--	1,500	--	<1
27---	9	<1	<1	<1	8	2	2	7,000	73	3
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Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402330107082000 Grassy Creek at Grassy Gap
 Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Mercury, total recovered ($\mu\text{g/L}$ as Hg)	Mercury, dis-solved ($\mu\text{g/L}$ as Hg)	Seleni-um, total solved ($\mu\text{g/L}$ as Se)	Seleni-um, dis-solved ($\mu\text{g/L}$ as Se)	Zinc, total solved ($\mu\text{g/L}$ as Zn)	Zinc, dis-solved ($\mu\text{g/L}$ as Zn)	Sedi-ment, dis-charge, sus-pended (ton/d)
Apr 01---	140	--	0.1	--	1	--	30	--	122
14---	440	--	.1	--	1	--	180	--	1040
21---	80	--	.1	--	1	--	20	--	57
27---	90	22	.2	.2	1	1	40	10	111
									.35
									1.6

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner						
Water-quality data, water year October 1974 to September 1975						
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (stand ard units)	Temper-ature (°C)	Phos-phorus, total erable (mg/L as P)	Cadmium, total recov-erable (µg/L as Cd)
Aug 30---	0.88	850	8.5	13.5	0.050	<20
					<10	--
					<100	<50
					--	--
						<20
Copper, suspended						
Date	Copper, dis-solved (µg/L as Cu)	Copper, total (µg/L as Cu)	Iron, sus-pended	Iron, total recov-erable (µg/L as Fe)	Iron, dis-solved (µg/L as Fe)	Copper, total recov-erable (µg/L as Co)
Aug 30---	<8	2	370	360	<10	<200
					<100	--
					<100	--
					--	--
Iron, suspended						
Date	Iron, dis-solved (µg/L as Cu)	Iron, total (µg/L as Cu)	Iron, sus-pended	Iron, total recov-erable (µg/L as Fe)	Iron, dis-solved (µg/L as Fe)	Iron, total recov-erable (µg/L as Co)
Aug 30---	<8	2	370	360	<10	<200
					<100	--
					<100	--
					--	--
Lead, suspended						
Date	Lead, dis-solved (µg/L as Pb)	Lead, total (µg/L as Pb)	Lead, sus-pended	Lead, total recov-erable (µg/L as Pb)	Lead, dis-solved (µg/L as Pb)	Lead, total recov-erable (µg/L as Pb)
Aug 30---	<8	2	370	360	<10	<200
					<100	--
					<100	--
					--	--
Manganese, suspended						
Date	Manganese, dis-solved (µg/L as Mn)	Manganese, total (µg/L as Mn)	Manganese, sus-pended	Manganese, total recov-erable (µg/L as Mn)	Manganese, dis-solved (µg/L as Mn)	Manganese, total recov-erable (µg/L as Mn)
Aug 30---	<8	2	370	360	<10	<200
					<100	--
					<100	--
					--	--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner
 Water-quality data, water year October 1974 to September 1975

Date	Mercury, sus- pended total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved total ($\mu\text{g/L}$ as Hg)	Selen- ium, sus- pended total ($\mu\text{g/L}$ as Se)	Selen- ium, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended total recov- erable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved total recov- erable ($\mu\text{g/L}$ as Zn)					
Aug 30---	<0.5	0.0	<0.5	<1	0	<1	<20	10	--	28	0.07

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner

Water-quality data, water year October 1975 to September 1976

Date	Specific conductance ($\mu\text{S}/\text{s}$)	Stream-flow, instantaneous (ft^3/s)	pH	(stand ard units)	Temper-ature ($^{\circ}\text{C}$)	Phos-phorus, total (mg/L as P)	Arsenic, sus-pended total ($\mu\text{g}/\text{L}$ as As)	Arsenic, sus-pended total ($\mu\text{g}/\text{L}$ as As)	Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)	Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)
			($\mu\text{S}/\text{cm}$)	(ft^3/s)	($^{\circ}\text{C}$)	($\mu\text{g}/\text{L}$ as P)	($\mu\text{g}/\text{L}$ as As)	($\mu\text{g}/\text{L}$ as As)	($\mu\text{g}/\text{L}$ as Cd)	($\mu\text{g}/\text{L}$ as Cd)
Mar 02---	E8.0	620	7.7	0.0	0.070	1	1	<1	<20	<9
Jun 07---	11	540	8.8	20.0	.070	2	0	1	<20	<10
Aug 31---	.03	900	8.6	23.0	.050	2	1	1	<20	<10
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Date	Cadmium, dissolved ($\mu\text{g}/\text{L}$ as Cd)	Cobalt, suspended recoverable ($\mu\text{g}/\text{L}$ as Co)	Cobalt, total recoverable ($\mu\text{g}/\text{L}$ as Co)	Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	Copper, suspended recoverable ($\mu\text{g}/\text{L}$ as Cu)	Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	Copper, suspended recoverable ($\mu\text{g}/\text{L}$ as Cu)	Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	Iron, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	Iron, suspended recoverable ($\mu\text{g}/\text{L}$ as Fe)
Mar 02---	<2	<100	<50	--	<20	8	2	1500	1500	
Jun 07---	--	<100	<50	--	<20	<10	--		1700	1700
Aug 31---	--	<100	<50	--	<20	<9	<2	530	510	

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner
Water-quality data, water year October 1975 to September 1976

Date	Lead,			Manga-			Mercury,		
	Lead, total	sus- pended	Lead, dis- solved	Manga- nese, total	sus- pended	Manga- nese, total	Mercury, total	sus- pended	Mercury, as Hg)
Mar 02---	<10	<200	<99	<2	80	40	<0.5	0.0	
Jun 07---	40	<200	<100	--	50	40	<10	<.5	.0
Aug 31---	20	<200	<100	--	190	90	100	<.5	.0
<hr/>									
Date	Sel- e- ni- um, total	Sel- e- ni- um, total	Sel- e- ni- um, dis- solved	Zinc, total	Zinc, sus- pended	Zinc, dis- solved	Sedi- ment, charge, sus- pended	Sedi- ment, dis- charge, sus- pended	
Mar 02---	<0.5	2	1	--	0	--	37	--	
Jun 07---	<.5	<1	0	<1	30	20	<20	158	4.7
Aug 31---	<.5	<1	0	<1	--	0	--	44	.00

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner
Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH	(stand- ard units)	Temper- ature (°C)	Alum-			Cadmium,		
						Phos- phorus, total (mg/L as P)	dis- solvable (µg/L as Al)	Alum- inum, total recov- erable (µg/L as Al)	Arsenic, total solved (µg/L as As)	dis- solvable (µg/L as As)	Cadmium, total recoverable (µg/L as Cd)
38	Apr 14---	170	688	7.8	1.0	--	23,000	--	9	--	<1
	22---	66	780	7.9	7.5	0.299	7,000	30	3	2	<1
	27---	100	594	8.1	6.0	.260	7,700	--	3	--	--
	28---	90	592	8.1	11.0	.292	7,700	--	3	--	--
	May 07---	80	452	8.3	6.0	.175	6,000	--	3	--	<1
											--
Chro-						Cobalt, total dis- solvable (µg/L as Cr) as Cr)	Copper, total dis- solvable (µg/L as Co) as Co)	Copper, total dis- solvable (µg/L as Cu) as Cu)	Iron, total dis- solvable (µg/L as Fe) as Fe)	Lead, total dis- solvable (µg/L as Pb) as Pb)	
38	Apr 14---	15	--	9	--	35	--	37,000	--	3	--
	22---	11	<1	3	<1	35	3	11,000	92	5	<1
	27---	10	--	4	--	22	--	12,000	--	8	--
	28---	9	--	3	--	23	--	12,000	--	5	--
	May 07---	9	--	4	--	12	--	11,000	--	13	--

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402530106585700 Fish Creek at mouth near Milner

Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, total dis- solved ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selenium, total solved ($\mu\text{g/L}$ as Se)	Seleni- um, dis- solved ($\mu\text{g/L}$ as Zn)	Zinc, total recovered ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Apr 14---	810	--	0.1	--	2	--	150	--	2340	1070
22---	210	40	.1	<0.1	2	2	60	10	599	107
27---	220	--	.1	--	2	--	80	--	655	177
28---	230	--	.1	--	2	--	60	--	605	147
May 07---	220	--	.1	--	1	--	70	--	506	109

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402605107181500 Dill Gulch near Hayden									
Water-quality data, water year October 1981 to September 1982									
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum- inum, total recoverable (µg/L as Al)	Cadmium, total recoverable (µg/L as Cd)			
Apr 21---	0.86	3480	8.2	4.0	0.090	380			
					2	<1			
					2	<1			
Manganese, Mercury, Selenium, Zinc, Sediment, dis-charge, suspended, pended									
Date	Copper, total (µg/L as Cu)	Iron, total (µg/L as Fe)	Lead, total (µg/L as Pb)	Manga- nese, total recoverable (µg/L as Mn)	Mercury, recoverable (µg/L as Hg)	Selen- ium, total recoverable (µg/L as Se)	Zinc, total recoverable (µg/L as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Apr 21---	5	270	<1	30	0.1	120	20	11	0.03

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402720106591200 Trout Creek above Milner

Water-quality data, water year October 1981 to September 1982

Date	Streamflow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper ature (°C)	Phos phorus, total (mg/L as P)	Alum inum, total recov erable ($\mu\text{g}/\text{L}$ as Al)	Arsenic, total dis solved ($\mu\text{g}/\text{L}$ as As)	Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)
Apr 28---	241	731	8.3	10.5	0.105	5800	20	1
May 07--	236	546	8.0	--	.553	5800	--	<1
<hr/>								
Date	Chro mium, total recoverable ($\mu\text{g}/\text{L}$ as Cr)	Chro mium, dis solved ($\mu\text{g}/\text{L}$ as Co)	Cobalt, total recoverable ($\mu\text{g}/\text{L}$ as Co)	Cobalt, dis solved ($\mu\text{g}/\text{L}$ as Cu)	Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	Copper, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	Iron, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	Lead, total recoverable ($\mu\text{g}/\text{L}$ as Pb)
Apr 28---	10	<1	3	<1	15	2	9700	28
May 07--	9	--	30	--	11	--	9000	--
<hr/>								

Apr 28--- May 07---

3 <1 28 3 <1
2 -- 2 --

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402720106591200 Trout Creek above Milner

Water-quality data, water year October 1981 to September 1982

Date	Manganese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved ($\mu\text{g/L}$ as Hg)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, total soluble ($\mu\text{g/L}$ as Se)	Sel- nium, dis- solved ($\mu\text{g/L}$ as Zn)	Zinc, total recovered ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Apr 28---	230	40	0.1	<0.1	2	1	50	<3	457	297
May 07---	230	--	.1	--	1	--	40	--	392	250

Table 3.--Water-quality data collected at study sites in the southern Tampa River basin--Continued

402829107193700 Smuin Gulch near Hayden						
Water-quality data, water year October 1981 to September 1982						
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum- inum, total recoverable (µg/L as Al)	Cadmium, total recoverable (µg/L as Cd)
Mar 25---	2.8	3290	8.0	1.0	--	2200
Apr 21---	.71	2860	8.2	2.0	0.282	2200
					2	<1
					2	6
					<1	1
43						
Date	Copper, total recoverable (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Manga- nese, total recoverable (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Zinc, total recoverable (µg/L as Zn)
Mar 25---	7	1700	2	40	0.1	70
Apr 21---	6	1900	1	50	.1	70
					20	104
					20	0.79
					110	.21

Table 3.--Water-quality data collected at study sites in the southern Yampa River basin--Continued

402836106550100 Cow Creek near Steamboat Springs									
Water-quality data, water year October 1981 to September 1982									
Date	Specific conductance (ft ³ /s)	Streamflow, instantaneous (ft ³ /cm)	pH	(stand ard units)	Temper ature (°C)	Alum-		Cadmium,	
						inum, total, recov- erable (µg/L as Al)	Phos- phorus, total, recov- erable (mg/L as P)	Arsenic, total, solved (µg/L as As)	Arsenic, total, solved (µg/L as Cd)
Apr	14---	12	406	7.8	4.0	--	1200	--	--
	21---	35	250	7.6	4.5	0.921	2600	--	<1
	28---	48	164	7.9	7.5	.098	2600	70	<1
	May 07---	30	194	8.0	4.0	.053	1800	--	<1
May	14---	3	--	<1	--	7	--	1500	--
	21---	6	--	1	--	8	--	3700	--
	28---	6	<1	1	<1	12	2	3200	59
	07---	5	--	1	--	5	--	2100	--
Apr	14---	3	--	<1	--	7	--	1500	--
	21---	6	--	1	--	8	--	3700	--
	28---	6	<1	1	<1	12	2	3200	59
	May 07---	5	--	1	--	5	--	2100	--
Chro-	mium, total, recov- erable (µg/L as Cr)	Chro- mium, total, recov- erable (µg/L as Co)	Cobalt, total, recov- erable (µg/L as Co)	Copper, total, recov- erable (µg/L as Cu)	Copper, total, recov- erable (µg/L as Cu)	Iron, total, recov- erable (µg/L as Fe)	Iron, total, recov- erable (µg/L as Pb)	Lead, total, recov- erable (µg/L as Pb)	Lead, total, recov- erable (µg/L as Pb)
	14---	3	--	<1	--	7	--	1	--
	21---	6	--	1	--	8	--	2	--
	28---	6	<1	1	<1	12	2	<1	2

Table 4.—Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin

09243700 Middle Creek near Oak Creek
Water-quality data, water year October 1978 to September 1979

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{s}/\text{cm}$)	pH (standard units)	Temperature (°C)	Alum-inum,			Arsenic, dis-solved			Cadmium, total			Cadmium, suspended		
					sus-pended	recov-erable	dis-solved	total	sus-pended	recov-erable	dis-solved	total	total	recov-erable	dis-solved	total
					($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as As)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as As)	($\mu\text{g/L}$ as Cd)	($\mu\text{g/L}$ as Cd)	($\mu\text{g/L}$ as Cd)	($\mu\text{g/L}$ as Cd)		
May 23---	34	410	7.7	11.5	2700	2600	80	1	1	--	--	0	<2			
Jun 27---	3.8	355	7.9	18.0	--	--	--	--	--	--	--	--	--	--		
Aug 15---	.60	700	8.2	18.0	260	260	<100	1	1	--	--	0	<2			
Date	Copper, total recov-erable ($\mu\text{g/L}$ as Cu)	Copper, sus-pended recov-erable ($\mu\text{g/L}$ as Cu)	Iron, total recov-erable ($\mu\text{g/L}$ as Cu)	Iron, sus-pended recov-erable ($\mu\text{g/L}$ as Fe)	Iron, dis-solved recov-erable ($\mu\text{g/L}$ as Fe)	Lead, sus-pended recov-erable ($\mu\text{g/L}$ as Pb)	Lead, total recov-erable ($\mu\text{g/L}$ as Pb)	Lead, dis-solved recov-erable ($\mu\text{g/L}$ as Pb)	Manga-nese, total recov-erable ($\mu\text{g/L}$ as Mn)	Manga-nese, sus-pended recov-erable ($\mu\text{g/L}$ as Mn)	Manga-nese, dis-solved recov-erable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recov-erable ($\mu\text{g/L}$ as Mn)	Manga-nese, dis-solved recov-erable ($\mu\text{g/L}$ as Mn)			
May 23---	7	6	<2	3900	3700	160	33	33	--	180	100	80				
Jun 27---	--	--	--	7200	<10	--	--	--	--	140	120	20				
Aug 15---	2	0	2	380	370	<10	3	3	--	130	10	120				

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1978 to September 1979

Date	Mercury, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved solvent ($\mu\text{g/L}$ as Se)	Selena- rium, sus- pended total total ($\mu\text{g/L}$ as Se)	Selena- rium, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, total recoverable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended solvent ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
May 23---	<0.1	0.0	<0.1	2	1	1	30	20	<20	267	25
Jun 27---	--	--	--	--	--	--	--	--	--	416	4.3
Aug 15---	<.1	.0	<.1	<1	0	<1	--	0	<3	36	.06

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

	09243700 Middle Creek near Oak Creek					
	Water-quality data, water year October 1979 to September 1980					
Date	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper ature ($^{\circ}\text{C}$)	Phos phorus, total (mg/L as P)	Alum inum, suspended (mg/L as Al)	Alum inum, dissolved (mg/L as Al)
Mar 25---	0.98	655	7.9	1.5	--	--
Apr 15---	2.2	600	7.7	1.5	0.160	1500
21---	46	400	7.2	4.0	2.50	8900
22---	47	430	7.5	8.5	1.30	8000
29---	42	380	--	13.0	.340	850
May 28---	20	460	8.0	11.0	.080	130
Jun 24---	2.5	650	8.1	17.0	--	--
Jul 29---	.04	735	7.9	16.0	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek
Water-quality data, water year October 1979 to September 1980

Date	Cadmium, total ($\mu\text{g/L}$ as As)	Cadmium, sus- pended ($\mu\text{g/L}$ as Cd)	Cadmium, recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total ($\mu\text{g/L}$ as Cr)	Cobalt, total ($\mu\text{g/L}$ as Co)	Copper, total ($\mu\text{g/L}$ as Cu)	Copper, sus- pended ($\mu\text{g/L}$ as Cu)	Copper, recov- erable ($\mu\text{g/L}$ as Cu)	Copper, dis- solved ($\mu\text{g/L}$ as Cu)	Iron, total ($\mu\text{g/L}$ as Fe)	
	48	25---	--	--	--	--	--	--	--	--	--	400
Mar 15---	--	0	--	--	2	2	1	--	--	--	--	2,900
Apr 21---	--	1	--	--	1	20	31	--	--	--	--	52,000
May 28---	--	1	--	--	3	10	9	4	5	5	5	39,000
Jun 24---	--	--	--	--	--	3	10	--	--	--	--	7,400
Jul 29---	--	--	--	--	--	--	--	--	--	--	--	340

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1979 to September 1980

	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)
Date								
Mar 25---	390	<10	--	--	230	40	190	--
Apr 15---	2,900	<10	4	--	400	210	190	0.0
21---	--	--	34	--	2400	--	--	.2
22---	39,000	50	29	29	1500	1400	70	0.0
29---	--	--	11	--	320	--	--	.0
May 28---	390	30	0	--	130	20	110	.1
Jun 24---	380	20	--	--	180	40	140	--
Jul 29---	330	10	--	--	110	0	320	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1979 to September 1980

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Zinc, total recovered ($\mu\text{g/L}$ as Zn)	Zinc, recov- erable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (mg/L)	Sedi- ment, sus- pended (mg/L)
Mar 25---	--	--	--	--	--	--	--	48
Apr 15---	--	1	--	10	--	--	370	2.2
21---	--	2	--	420	--	--	4320	537
22---	0.0	0	1	170	120	50	2700	343
29---	--	1	--	60	--	--	670	76
May 28---	--	0	--	20	--	--	69	3.7
Jun 24---	--	--	--	--	--	--	65	.44
Jul 29---	--	--	--	--	--	--	51	.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1980 to September 1981

Date	Specific conductance ($\mu\text{S}/\text{cm}$)	pH	(standard units)	Temperature ($^{\circ}\text{C}$)	Alum-inum, suspended (as Al)	Alum-inum, total recovered (as Al)	Arsenic, dissolved (as Al) ($\mu\text{g}/\text{L}$)	Alum-inum, total dissolved (as As) ($\mu\text{g}/\text{L}$)	Arsenic, suspended (as As) ($\mu\text{g}/\text{L}$)	total dissolved (as Cd) ($\mu\text{g}/\text{L}$)	Cadmium, recoverable (as Cd) ($\mu\text{g}/\text{L}$)	Cadmium, dissolved (as Cd) ($\mu\text{g}/\text{L}$)
Oct 30---	0.68	810	8.0	2.0	--	--	--	--	--	--	--	--
Nov 25---	.49	810	7.8	.5	--	--	--	--	--	--	--	--
Dec 22---	.50	775	7.8	.0	50	30	20	--	--	--	--	--
Jan 20---	.28	890	7.6	.0	--	--	--	--	--	--	--	--
Feb 25---	.98	660	8.0	.0	--	--	--	--	--	--	--	--
Mar 31---	1.6	655	8.4	2.0	--	--	--	--	--	--	--	--
Apr 29---	.92	690	8.3	13.0	590	580	0	1	0	1	0	<1
May 27---	.78	680	8.2	16.0	--	--	--	--	--	--	--	--
Jul 01---	1.4	666	8.3	20.0	--	--	--	--	--	--	--	--
29---	.01	735	8.1	21.0	290	270	20	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek
Water-quality data, water year October 1980 to September 1981

Date	Copper, sus- pended Copper, total recover- able ·erable ·solved ($\mu\text{g/L}$ as Cu) as Cu)	Copper, sus- pended Copper, total recover- able ·erable ·solved ($\mu\text{g/L}$ as Fe)	Iron, sus- pended total recover- able ·solved ($\mu\text{g/L}$ as Fe)	Iron, sus- pended total recover- able ·solved ($\mu\text{g/L}$ as Fe)	Lead, sus- pended total recover- able ·solved ($\mu\text{g/L}$ as Pb)	Lead, sus- pended total recover- able ·solved ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended total recover- able ·solved ($\mu\text{g/L}$ as Mn)
Oct 30---	--	--	650	640	10	--	--
Nov 25---	--	--	180	--	<10	--	--
Dec 22---	--	--	180	160	20	3	1
Jan 20---	--	--	310	290	20	--	--
Feb 25---	--	--	1800	1700	80	--	--
Mar 31---	--	--	460	440	20	--	--
Apr 29---	4	2	740	--	<10	0	0
May 27---	--	--	900	890	10	--	--
Jul 01---	--	--	1200	1200	10	--	--
29---	--	--	950	910	37	5	0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1980 to September 1981

Date	Mercury, total ($\mu\text{g/L}$ as Hg)	Sus- pended recover- able	Mercury, dis- solved	Sel- nium, total ($\mu\text{g/L}$ as Se)	Sele- nium, sus- pended	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Oct 30---	--	--	--	--	--	--	--	--	36 0.07
Nov 25----	--	--	--	--	--	--	--	--	28 .04
Dec 22----	--	--	--	--	--	20 0	20 <3	14 --	.02
Jan 20----	--	--	--	--	--	--	--	31 --	.02
Feb 25----	--	--	--	--	--	--	--	98 --	.26
Mar 31----	--	--	--	--	--	--	--	37 --	.16
Apr 29----	1.5	1.5	0.0	0	0	20 0	--	<3 76	.19
May 27----	--	--	--	--	--	--	--	135 --	.28
Jul 01----	--	--	--	--	--	--	--	99 14	.37
29----	--	--	--	--	--	20 0	--	87 0	.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243700 Middle Creek near Oak Creek

Water-quality data, water year October 1981 to September 1982

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temper- ature (°C)	Alum- inum,			Chro- mium,			
					Phos- phorus, total	Phos- phorus, recoverable	Arsenic, total	Cadmium, total	Cobalt, total		
					($\mu\text{g/L}$) as Al)	($\mu\text{g/L}$) as As)	($\mu\text{g/L}$) as Al)	($\mu\text{g/L}$) as Cd)	($\mu\text{g/L}$) as Cr)	(mg/L)	
Apr 14---	54	15	550	--	8.0	--	9,900	4	<1	21	5
May 04---	41	380	--	10.0	0.620	14,000	5	1	27	7	
May 18---	29	400	8.2	9.0	.203	2,600	3	1	11	3	
<hr/>											
Date					Copper, total	Iron, total	Lead, total	Selen- ium, total	Zinc, total	Sedi- ment, dis- charge, sus- pended	
					recover- able ($\mu\text{g/L}$) as Cu)	recover- able ($\mu\text{g/L}$) as Fe)	recover- able ($\mu\text{g/L}$) as Pb)	recover- able ($\mu\text{g/L}$) as Mn)	recover- able ($\mu\text{g/L}$) as Se)	($\mu\text{g/L}$) as Zn)	
Apr 14---	19	15,000	10	670	0.1	1	90	847	34		
May 04---	23	24,000	11	1000	.2	1	120	1340	148		
May 18---	6	4,400	5	230	.1	1	30	290	23		

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243800 Foidel Creek near Oak Creek

Water-quality data, water year October 1978 to September 1979

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (stand- ard units)	Temper- ature (°C)	Alum- inum,			Alum- inum,			Cadmium, sus-		
					Total reco- vable (µg/L) as Al)	Sus- pended reco- vable (µg/L) as Al)	Dis- solved (µg/L) as Al)	Total reco- vable (µg/L) as As)	Sus- pended reco- vable (µg/L) as As)	Dis- solved (µg/L) as As)	Total reco- vable (µg/L) as Cd)	Sus- pended reco- vable (µg/L) as Cd)	Dis- solved (µg/L) as Cd)
Apr 09---	5.3	520	7.6	5.0	1500	1500	<100	2	1	3	3	--	--
Jun 29---	.04	769	7.2	15.0	--	--	--	--	--	--	--	--	--
<hr/>													
Copper, sus- pended	Copper, dis- solvable (µg/L) as Cu)	Iron, total reco- vable (µg/L) as Cu)	Iron, sus- pended	Iron, dis- solvable (µg/L) as Fe)	Lead, total reco- vable (µg/L) as Pb)	Lead, sus- pended	Lead, dis- solvable (µg/L) as Pb)	Manga- nese, total reco- vable (µg/L) as Mn)	Manga- nese, sus- pended	Manga- nese, dis- solvable (µg/L) as Mn)	Manga- nese, reco- vable (µg/L) as Mn)		
Copper, total reco- vable (µg/L) as Cu)	Copper, dis- solvable (µg/L) as Cu)	Iron, total reco- vable (µg/L) as Fe)	Iron, dis- solvable (µg/L) as Fe)	Iron, dis- solvable (µg/L) as Fe)	Lead, total reco- vable (µg/L) as Pb)	Lead, sus- pended	Lead, dis- solvable (µg/L) as Pb)	Manga- nese, total reco- vable (µg/L) as Mn)	Manga- nese, sus- pended	Manga- nese, dis- solvable (µg/L) as Mn)	Manga- nese, reco- vable (µg/L) as Mn)		

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

		09243800 Foidel Creek near Oak Creek									
		Water-quality data, water year October 1978 to September 1979									
Date		Mercury, sus- pended total	Mercury, dis- solvable ($\mu\text{g/L}$ as Hg)	Sela- nium, sus- pended total	Sela- nium, dis- solved total	Zinc, total recover- able	Zinc, sus- pended recover- able	Zinc, total ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended	Sedi- ment, sus- pended (ton/d)
Apr 09--		<0.1	0.0	<0.1	1	0	2	40	30	<20	50
Jun 29--		--	--	--	--	--	--	--	--	--	0.72
										119	.01

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243800 Foidel Creek near Oak Creek

Water-quality data, water year October 1979 to September 1980

	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper-ature ($^{\circ}\text{C}$)	Phos-phorus, total ($\mu\text{g}/\text{L}$ as P)	Alum-inum, total, recoverable ($\mu\text{g}/\text{L}$ as Al)	Alum-inum, dis-solved ($\mu\text{g}/\text{L}$ as Al)	Alum-inum, total ($\mu\text{g}/\text{L}$ as As)
Mar 25---	2.5	770	7.5	--	--	--	--
Apr 10---	1.2	720	--	0.5	0.570	8900	--
15---	6.4	620	7.3	3.0	.540	4700	--
21---	56	210	7.5	3.0	1.30	9300	9300
22---	54	210	7.5	6.0	.880	6500	--
29---	12	450	--	13.5	.230	1300	--
May 28---	2.6	625	8.2	15.0	--	--	--
Jun 24---	.28	820	7.6	19.0	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243800 Foidel Creek near Oak Creek									
Water-quality data, water year October 1979 to September 1980									
Date	Arsenic, dis- solved ($\mu\text{g/L}$ as As)	Cadmium, total recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, sus- pended recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recov- erable ($\mu\text{g/L}$ as Cr)	Cobalt, total recov- erable ($\mu\text{g/L}$ as Co)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recov- erable ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)
Mar 25---	--	--	--	--	--	--	--	--	--
Apr 10---	--	1	--	--	0	8	18	--	--
15---	--	1	--	--	2	6	8	--	--
21---	1	1	0	2	16	10	24	19	18000
22---	--	1	--	--	14	8	9	--	13000
29---	--	1	--	--	1	0	7	--	33000
May 28---	--	--	--	--	--	--	--	--	5
Jun 24---	--	--	--	--	--	--	--	--	14000
									3200
									17000

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243800 Foidel Creek near Oak Creek
Water-quality data, water year October 1979 to September 1980

	Iron, sus- pended	Lead, total	Lead, sus- pended	Lead, dis- cov- erable	Manga- nese, total	Manga- nese, sus- pended	Manga- nese, total	Manga- nese, dis- cov- erable	Manga- nese, total	Manga- nese, sus- pended	Manga- nese, total	Manga- nese, dis- cov- erable	Manga- nese, total	Manga- nese, sus- pended	Manga- nese, total	Manga- nese, dis- cov- erable	Manga- nese, total	Manga- nese, sus- pended	
Date	($\mu\text{g/L}$ (as Fe) as Pb)	($\mu\text{g/L}$ (as Fe) as Pb)	($\mu\text{g/L}$ (as Pb)	($\mu\text{g/L}$ (as Pb)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)	($\mu\text{g/L}$ (as Mn)
Mar																			
25---	17,000	110	--	--	--	--	400	290	110	--	--	--	--	--	--	--	--	--	--
Apr																			
10---	--	--	10	--	--	--	360	--	--	--	0.1	--	--	--	--	--	--	--	--
15---	--	--	12	--	--	--	270	--	--	--	.0	--	--	--	--	--	--	--	--
21---	33,000	110	28	25	3	520	510	10	.1	.1	.1	--	--	--	--	--	--	--	--
22---	--	--	20	--	--	330	--	--	--	--	--	--	--	--	--	--	--	--	--
29---	--	--	5	--	--	70	--	--	--	--	.1	--	--	--	--	--	--	--	--
May																			
28---	1,600	10	--	--	--	--	100	40	60	--	--	--	--	--	--	--	--	--	--
Jun																			
24---	--	<10	--	--	--	--	160	70	90	--	--	--	--	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243800 Foidel Creek near Oak Creek						
Water-quality data, water year October 1979 to September 1980						
Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended total solved ($\mu\text{g/L}$ as Zn)	Zinc, dis- cov- erable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended total solved ($\mu\text{g/L}$ as Zn)
Mar 25---	--	--	--	--	--	--
Apr 10---	--	1	--	70	--	--
15---	--	1	--	80	--	--
21---	0.0	0	0	240	140	100
22---	--	1	--	90	--	--
29---	--	2	--	80	--	--
May 28---	--	--	--	--	--	--
Jun 24---	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper-ature (°C)	Alum-inum, sus-pended (µg/L as Al)	Alum-inum, total (µg/L as Al)	Arsenic, dis-solved (µg/L as As)	Arsenic, total (µg/L as As)	Cadmium, dis-solved (µg/L as Cd)	Cadmium, total (µg/L as Cd)
Oct 30---	0.17	1030	7.6	5.0	--	--	--	--	--
Nov 25---	.14	1040	7.5	2.0	--	--	--	--	--
Dec 22---	.01	1140	7.1	1.0	70	60	10	--	--
Feb 25---	1.8	1140	7.9	.5	--	--	--	--	--
Mar 31---	.38	1020	8.1	6.0	--	--	--	--	--
Apr 29---	.21	1070	8.1	17.0	160	140	20	1	0 <1
May 27---	.18	1080	8.1	17.0	--	--	--	--	--
Jul 01---	.01	1200	7.5	17.0	--	--	--	--	--
29---	.01	1250	7.7	20.5	150	130	20	--	--
Aug 27---	.05	1330	7.6	11.0	--	--	--	--	--
Sep 29---	.01	1300	7.6	11.0	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

	09243800 Foidel Creek near Oak Creek									
	Water-quality data, water year October 1980 to September 1981									
	Copper, sus- pended total recover- able erable ($\mu\text{g/L}$ as Cu)	Copper, total dis- solved erable ($\mu\text{g/L}$ as Cu)	Iron, sus- pended total recover- able ($\mu\text{g/L}$ as Fe)	Iron, dis- solved erable ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended total recover- able ($\mu\text{g/L}$ as Pb)	Lead, dis- solved erable ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended total recover- able ($\mu\text{g/L}$ as Mn)	
Oct 30----	--	--	290	270	20	--	--	100	10	90
Nov 25----	--	--	320	310	10	--	--	140	20	120
Dec 22----	--	--	650	630	20	1	1	0	470	20
Feb 25----	--	--	770	740	30	--	--	260	10	250
Mar 31----	--	--	710	690	20	--	--	150	30	120
Apr 29----	4	1	380	360	20	1	0	3	--	100
May 27----	--	--	840	770	70	--	--	130	10	120
Jul 01----	--	--	880	850	30	--	--	1500	0	1500
29----	--	--	630	610	21	5	5	360	80	280
Aug 27----	--	--	1100	1100	21	--	--	360	30	330
Sep 29----	--	--	670	640	32	--	--	350	40	310

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243800 Foidel Creek near Oak Creek
Water-quality data, water year October 1980 to September 1981

Date	Mercury, sus- pended total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sele- nium, sus- pended total recover- able ($\mu\text{g/L}$ as Se)	Sele- nium, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, total recovered ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recovered ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Oct 30----	--	--	--	--	--	--	--	52 0.02
Nov 25----	--	--	--	--	--	--	--	51 .02
Dec 22----	--	--	--	--	--	20	20	39 .00
Feb 25----	--	--	--	--	--	--	--	44 .21
Mar 31----	--	--	--	--	--	--	--	39 .04
Apr 29----	0.1	0.0	0	0	10	0	8 49	.03
May 27----	--	--	--	--	--	--	--	62 .03
Jul 01----	--	--	--	--	--	--	--	107 .00
29----	--	--	--	--	10	0	4 129	.00
Aug 27----	--	--	--	--	--	--	--	110 .01
Sep 29----	--	--	--	--	--	--	39 .00	

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243800 Foidel Creek near Oak Creek

Water-quality data, water year October 1981 to September 1982

Date	Specific conductance (µS/cm)	pH (stand ard units)	Temper-ature (°C)	Alum- inum, total recover-able (µg/L as Al)	Alum- inum, total recover-able (µg/L as Al)	Arsenic, sus-pended total solvable (µg/L as As)	Arsenic, sus-pended total solvable (µg/L as As)	Cadmium, total solvable (µg/L as Cd)	Cadmium, total recover-able (µg/L as Cd)
Apr 13---	9.4	690	--	12.0	2600	--	1	--	--
14---	7.8	720	8.1	12.5	2000	3000	1	0	<1
May 18---	3.8	820	8.6	12.0	270	--	<10	1	<1
Jun 04---	1.8	1000	8.4	16.5	--	--	--	--	<3
Jul 20---	.18	1260	8.1	23.5	--	--	--	--	--
Sep 29---	.25	1350	8.0	10.5	580	--	<10	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243800 Foidel Creek near Oak Creek

Water-quality data, water year October 1981 to September 1982

	Chromium, total recoverable ($\mu\text{g/L}$ as Cr)	Cobalt, total recoverable ($\mu\text{g/L}$ as Co)	Copper, sus- pended recoverable ($\mu\text{g/L}$ as Cu)	Copper, dis- solved recoverable ($\mu\text{g/L}$ as Cu)	Iron, total recoverable ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recoverable ($\mu\text{g/L}$ as Fe)	Lead, total recoverable ($\mu\text{g/L}$ as Pb)	Manganese, total recoverable ($\mu\text{g/L}$ as Mn)
Apr								
13---	11	2	6	--	3300	--	<1	--
14---	9	3	5	5	2500	2800	30	4
May							3	1
18---	--	--	8	4	300	--	<9	3
Jun				--				
04---	--	--	--	--	460	430	28	--
Jul								
20---	--	--	--	--	1900	1900	11	--
Sep								
29---	--	--	--	--	1300	1300	22	7
							0	11
								670

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243800 Foidel Creek near Oak Creek
Water-quality data, water year October 1981 to September 1982

Date	Manga-nese, sus-pended reco-v-er-able ($\mu\text{g/L}$ as Mn)	Manga-nese, total reco-v-er-able ($\mu\text{g/L}$ as Hg)	Mercury, total dis-solved ($\mu\text{g/L}$ as Hg)	Mercury, dis-solved ($\mu\text{g/L}$ as Se)	Sel-e-nium, sus-pended total ($\mu\text{g/L}$ as Se)	Sel-e-nium, dis-solved total ($\mu\text{g/L}$ as Se)	Sel-e-nium, total solved ($\mu\text{g/L}$ as Se)	Zinc, total recov-er-able ($\mu\text{g/L}$ as Zn)	Zinc, dis-solved ($\mu\text{g/L}$ as Zn)	Zinc, dis-solved ($\mu\text{g/L}$ as Zn)	Sedi-ment, dis-charge, sus-pended (ton/d)	
Apr 13---	--	--	0.1	--	1	--	--	30	--	--	132	3.4
14---	50	37	.1	<0.1	1	0	2	20	--	<12	90	1.9
May 18---	30	39	<.1	<.1	1	0	1	40	--	<12	22	.23
Jun 04---	20	53	--	--	--	--	--	--	--	--	46	.22
Jul 20---	80	510	--	--	--	--	--	--	--	--	265	.13
Sep 29---	100	570	--	--	--	--	--	20	10	10	63	.04

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek

Water-quality data, water year October 1978 to September 1979

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (stand ard units)	Temper-ature (°C)	Alum-inum, total recoverable (µg/L as Al)	Alum-inum, suspended recoverable (µg/L as Al)	Arsenic, total dissolved (µg/L as As)	Arsenic, dis-solved (µg/L as As)	Cadmium, total dissolved (µg/L as Cd)	Cadmium, sus-pended (µg/L as Cd)	Cadmium, dis-solved (µg/L as Cd)
Mar 23---	10	1080	7.2	0.0	340	320	20	1	1	<2	1
Apr 09---	13	675	7.4	5.5	4200	4200	<100	2	1	5	4
May 23---	6.0	650	7.8	13.0	410	410	<100	--	--	--	--
Jun 27---	1.1	1600	8.0	16.0	--	--	--	--	--	--	--
Aug 15---	.02	1900	8.0	16.0	270	270	<100	1	1	--	0
											<2

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243900 Foideal Creek at mouth, near Oak Creek

Water-quality data, water year October 1978 to September 1979

Date	Copper, sus- pended total recover- able erable ($\mu\text{g/L}$ as Cu) as Cu)	Copper, Copper, dis- solved solvent ($\mu\text{g/L}$) as Cu)	Iron, total recover- able ($\mu\text{g/L}$) as Fe)	Iron, sus- pended total recover- able ($\mu\text{g/L}$) as Fe)	Lead, total dis- solved ($\mu\text{g/L}$) as Pb)	Lead, sus- pended total recover- able ($\mu\text{g/L}$) as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$) as Mn)
Mar 23----	5	--	520	450	70	12	--
Apr 09----	23	4	19	6300	40	29	6
May 23--	--	--	--	650	640	<10	--
Jun 27----	--	--	--	340	270	70	--
Aug 15----	2	0	2	460	430	30	3
							--
							1500
							0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek
Water-quality data, water year October 1978 to September 1979

Date	Mercury, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selena- num, sus- pended total total ($\mu\text{g/L}$ as Se)	Seleni- num, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended total soluble ($\mu\text{g/L}$ as Zn)	Zinc, dis- recovered erable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended soluble ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Mar 23---	<0.1	0.0	<0.1	2	1	1	20	0	<20	106
Apr 09---	<.1	.1	<.1	2	1	1	90	60	30	291
May 23---	--	--	--	--	--	30	20	<20	60	.98
Jun 27---	--	--	--	--	--	--	--	--	9	.03
Aug 15---	<.1	.0	<.1	1	0	1	<20	0	<3	101
										.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek						
Water-quality data, water year October 1979 to September 1980						
Date	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature ($^{\circ}\text{C}$)	Phosphorus, total (mg/L as P)	Alum-inum, sus-pended recoverable ($\mu\text{g}/\text{L}$ as Al)	Alum-inum, sus-pended recoverable ($\mu\text{g}/\text{L}$ as As)
Nov 05---	0.03	1420	8.0	5.5	--	--
Dec 10---	.19	1520	7.7	3.0	--	--
Mar 27---	.55	1250	7.3	.5	--	--
Apr 10---	23	1000	--	.5	0.470	8,500
15---	8.8	910	7.5	3.5	--	3,300
17---	27	810	--	8.5	.970	4,900
21---	82	430	7.3	7.0	2.10	20,000
22---	76	400	7.2	8.5	1.90	13,000
29---	31	770	--	12.5	.360	350
May 28---	6.1	710	8.1	15.0	--	--
Jun 24---	4.3	2950	8.0	18.5	--	--
Jul 29---	.08	1390	7.9	20.0	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek		Water-quality data, water year October 1979 to September 1980									
Date		Cadmium, Arsenic, dis- solved ($\mu\text{g/L}$ as As) as Cd)	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	sus- pended recover- able ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)	
Nov	05---	--	--	--	--	--	--	--	380	--	
Dec	10---	--	--	--	--	--	--	--	440	400	
Mar	27---	--	--	--	--	--	--	--	1,300	1,300	
Apr	10---	--	0	--	--	6	6	12	12,000	--	
	15---	--	1	--	--	4	5	6	9,200	9,200	
	17---	--	0	--	--	--	6	12	12,000	--	
	21---	1	1	0	1	20	20	31	55,000	--	
	22---	--	2	--	--	1	20	23	68,000	--	
	29---	--	1	--	--	0	2	10	7,400	--	
May	28---	--	--	--	--	--	--	--	1,700	1,700	
Jun	24---	--	--	--	--	--	--	--	970	940	
Jul	29---	--	--	--	--	--	--	--	1,000	--	

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek

Water-quality data, water year October 1979 to September 1980

Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, dis- solved soluble ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	Mercu- ry, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	
Nov 05---	30	--	--	--	610	30	580	--
Dec 10---	40	5	5	0	750	0	800	--
Mar 27---	20	--	--	--	260	30	230	--
Apr 10---	--	5	--	--	550	--	--	0.0
15----	20	11	--	--	360	190	170	.0
17----	--	8	--	--	420	--	--	.1
21----	--	43	40	3	1400	--	--	.1
22----	--	55	--	--	1800	--	--	--
29----	--	9	--	--	180	--	--	.0
May 28---	30	--	--	--	140	40	100	--
Jun 24---	30	--	--	--	200	40	160	--
Jul 29---	<10	--	--	--	280	40	240	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek							Water-quality data, water year October 1979 to September 1980									
Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sele- nium, sus- pended total			Sele- nium, sus- pended total			Zinc, dis- cov- erable			Zinc, dis- cov- erable			Sedi- ment, sus- pended as Zn)		
		($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	($\mu\text{g/L}$ as Se)	
Nov 05---	--	--	--	--	--	--	--	--	--	--	--	--	--	65	0.00	
Dec 10---	--	--	--	--	--	--	0	0	0	9	36	.02				
Mar 27---	--	--	--	--	--	--	--	--	--	--	74	.11				
Apr 10---	--	1	--	--	--	--	40	--	--	--	568	35				
15---	--	1	--	--	--	--	50	--	--	--	402	9.6				
17---	--	2	--	--	--	--	70	--	--	--	302	22				
21---	0.0	2	1	--	--	--	250	--	--	--	2250	498				
22---	--	1	--	--	--	--	330	--	--	--	3290	675				
29---	--	5	--	--	--	--	80	--	--	--	394	33				
May 28---	--	--	--	--	--	--	--	--	--	--	180	3.0				
Jun 24---	--	--	--	--	--	--	--	--	--	--	134	1.6				
Jul 29---	--	--	--	--	--	--	--	--	--	--	87	.02				

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek

Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Spec- cific con- duct- ance (µS/cm)	pH (stand- ard units)	Temper- ature (°C)	Alum- inum, total recover- able (µg/L as Al)	Alum- inum, sus- pended recover- able (µg/L as Al)	Alum- inum, dis- solved (µg/L as Al)	Arsenic, total (µg/L as As)	Arsenic, sus- pended total (µg/L as As)	Arsenic, dis- solved (µg/L as As)
Oct 02---	0.01	1930	7.7	8.0	270	270	0	2	1	1
30---	.30	1650	7.7	6.0	--	--	--	--	--	--
Nov 25----	.32	1600	7.7	3.0	--	--	--	--	--	--
Dec 22----	.22	1560	7.6	.5	70	60	10	--	--	--
Feb 25----	3.2	1040	7.8	.5	--	--	--	--	--	--
Mar 06----	1.0	760	7.9	1.0	5200	--	--	--	--	--
16----	1.3	1050	7.8	6.0	4500	--	--	--	--	--
31----	1.1	1350	8.2	4.0	--	--	--	--	--	--
Apr 08----	1.4	1200	--	7.0	1000	--	--	--	--	--
29----	.17	1330	8.2	16.0	2200	2200	20	1	0	1
May 27----	.82	1310	8.1	18.0	--	--	--	--	--	--

Table 4.-Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

Date	Cadmium, total recover- able	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able	Cobalt, total recover- able	Copper, total recover- able	Copper, sus- pended recover- able	Copper, dis- solved recover- able	Iron, total recover- able ($\mu\text{g/L}$ as Cu)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)
Oct 02---	0	<1	--	--	4	1	3	790	780
30----	--	--	--	--	--	--	--	540	510
Nov 25----	--	--	--	--	--	--	--	490	480
Dec 22----	--	--	--	--	--	--	--	510	480
Feb 25----	--	--	--	--	--	--	--	2300	2200
Mar 06----	1	--	16	6	12	--	--	7300	--
16----	0	--	10	5	8	--	--	6600	--
31----	--	--	--	--	--	--	--	3600	3600
Apr 08----	0	--	11	2	8	--	--	5900	--
29----	0	<1	--	--	7	4	3	2600	--
May 27----	--	--	--	--	--	--	--	2100	2100

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek

Water-quality data, water year October 1980 to September 1981

	Lead, total recoverable ($\mu\text{g/L}$ as Fe) as Pb)	Lead, sus-pended recoverable ($\mu\text{g/L}$ as Pb)	Lead, dis-solved ($\mu\text{g/L}$ as Pb)	Manga-nese, total recoverable ($\mu\text{g/L}$ as Mn)	Manga-nese, sus-pended recoverable ($\mu\text{g/L}$ as Mn)	Manga-nese, dis-solved recoverable ($\mu\text{g/L}$ as Mn)	Manga-nese, total recoverable ($\mu\text{g/L}$ as Hg)
Oct 02---	10	5	3	2	400	80	320
30----	30	--	--	--	610	0	610
Nov 25----	10	--	--	--	810	40	770
Dec 22----	30	2	0	2	800	50	750
Feb 25----	90	--	--	--	430	40	390
Mar 06----	--	17	--	--	510	--	--
16----	--	2	--	--	450	--	--
31----	20	--	--	--	360	100	260
Apr 08----	--	3	--	--	290	--	--
29----	<10	0	0	3	410	120	290
May 27----	20	--	--	--	380	90	290

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09243900 Foidel Creek at mouth, near Oak Creek

Water-quality data, water year October 1980 to September 1981

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended ($\mu\text{g/L}$ as Se)	Zinc, total, solved ($\mu\text{g/L}$ as Zn)	Zinc, recov- erable ($\mu\text{g/L}$ as Zn)	Zinc, recovered ($\mu\text{g/L}$ as Zn)	Zinc, solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (mg/L)	Sedi- ment, sus- pended (ton/d)
Oct 02---	0.0	1	0	1	10	--	<3	116	0.00
30---	--	--	--	--	--	--	--	54	.04
Nov 25----	--	--	--	--	--	--	--	81	.07
Dec 22----	--	--	--	--	60	60	<3	75	.04
Feb 25----	--	--	--	--	--	--	--	502	4.3
Mar 06----	--	--	--	--	50	--	--	549	1.5
16----	--	--	--	--	30	--	--	246	.86
31----	--	--	--	--	--	--	--	204	.61
Apr 08----	--	--	--	--	40	--	--	236	.89
29----	.0	0	0	1	20	--	<3	179	.08
May 27----	--	--	--	--	--	--	--	331	.73

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924415 Sage Creek above Sage Creek Reservoir, near Hayden
 Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum- inum, total recovered (µg/L as Al)	Alum- inum, recovered (µg/L as Al)	Alum- inum, suspended recoverable (µg/L as Al)	Arsenic, total (µg/L as As)	Arsenic sus- pended solved (µg/L as As)	Arsenic dis- solved (µg/L as As)
Jan 28---	0.04	905	8.0	0.0	--	--	--	--	--	--
Mar 06---	.09	860	7.9	.0	--	--	--	--	--	--
31---	.08	935	8.2	2.0	--	--	--	--	--	--
Apr 15---	.57	660	7.9	10.5	7,700	7700	40	4	3	1
29---	.21	770	8.2	15.5	--	--	--	--	--	--
May 27---	1.0	710	7.6	13.0	50,000	--	--	10	--	--
Jun 24---	.06	700	8.2	19.0	--	--	--	--	--	--
Jul 23---	.04	760	8.2	14.5	260	240	20	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Copper, dis- solved recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)
Jan 28----	--	--	--	--	--	--	--	3,100	3,100
Mar 06----	--	--	--	--	--	--	--	3,100	2,800
31----	--	--	--	--	--	--	--	1,700	1,700
Apr 15----	0	<1	--	--	15	13	2	19,000	19,000
29----	--	--	--	--	--	--	--	1,700	1,700
May 27----	1	--	54	0	250	--	--	190,000	190,000
Jun 24----	--	--	--	--	--	--	--	1,500	--
Jul 23----	--	--	--	--	--	--	--	1,300	1,300

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924415 Sage Creek above Sage Creek Reservoir, near Hayden

Water-quality data, water year October 1980 to September 1981

Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recover- able ($\mu\text{g/L}$ as Pb)	Lead, dis- solved ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recover- able ($\mu\text{g/L}$ as Hg)
Jan 28---	10	--	--	--	400	70	330	--	--
Mar 06---	260	--	--	--	280	40	240	--	--
31---	20	--	--	--	250	50	200	--	--
Apr 15---	40	17	15	2	410	340	70	0.1	0.1
29---	20	--	--	--	160	60	100	--	--
May 27---	10	90	--	--	4100	4100	40	.3	--
Jun 24---	<10	--	--	--	130	80	50	--	--
Jul 23---	10	1	0	2	100	60	40	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924415 Sage Creek above Sage Creek Reservoir, near Hayden		Water-quality data, water year October 1980 to September 1981					
Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selen- ium, total ($\mu\text{g/L}$ as Se)	Selen- ium, suspended ($\mu\text{g/L}$ as Se)	Zinc, total recoverable ($\mu\text{g/L}$ as Zn)	Zinc, suspended recoverable ($\mu\text{g/L}$ as Zn)	Zinc, dissolved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (ton/d)
Jan 28---	--	--	--	--	--	--	133 0.01
Mar 06---	--	--	--	--	--	--	154 .04
31---	--	--	--	--	--	--	121 .03
Apr 15---	0.0	0	0	90	--	<3	906 1.4
29---	--	--	--	--	--	--	120 .07
May 27---	--	3	--	1000	--	--	11,300 31
Jun 24---	--	--	--	--	--	--	112 .02
Jul 23---	--	--	--	30	20	10	108 .01

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924415 Sage Creek above Sage Creek Reservoir, near Hayden
 Water-quality data, water year October 1981 to September 1982

	Specific conductance ($\mu\text{S}/\text{cm}$)	pH	(standard units)	Temperature ($^{\circ}\text{C}$)	Phosphorus, total recoverable	Alum-inum, suspended	Alum-inum, dissolved	Arsenics, suspended	Arsenics, total dissolved	Cadmium, total recoverable
Date	(ft^3/s)	($\mu\text{S}/\text{cm}$)	(mg/L as P)	($^{\circ}\text{C}$)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as Al)	($\mu\text{g/L}$ as As)	($\mu\text{g/L}$ as As)	($\mu\text{g/L}$ as Cd)
Apr 13---	1.3	450	--	2.0	--	13,000	--	3	--	--
14---	6.3	320	7.5	.5	--	19,000	22,000	5	7	<1
28---	6.9	340	--	11.0	0.270	6,600	--	1	--	<1
28---	7.2	340	--	11.0	.250	4,200	--	1	--	<1
29---	4.0	410	8.2	3.5	.180	2,000	--	3	--	<1
May 04---	12	360	--	10.0	.220	2,800	--	1	--	--
18---	4.1	430	8.5	12.0	--	260	240	1	0	1
Jun 04---	1.7	510	8.4	11.0	--	--	--	--	--	--
Jul 20---	--	622	8.4	20.0	--	--	--	--	--	--
Sep 29---	E.01	1000	8.4	8.0	--	200	180	20	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244415 Sage Creek above Sage Creek Reservoir, near Hayden
Water-quality data, water year October 1981 to September 1982

	Chro-mium, total	Cobalt, total	Copper, total	Copper, sus-pended	Iron, total	Lead, sus-pended	Lead, dis-solved
Date	($\mu\text{g}/\text{L}$) (as Cd) as Cr)	($\mu\text{g}/\text{L}$) (as Co)	($\mu\text{g}/\text{L}$) (as Cu)	($\mu\text{g}/\text{L}$) (as Cu)	($\mu\text{g}/\text{L}$) (as Fe)	($\mu\text{g}/\text{L}$) (as Fe)	($\mu\text{g}/\text{L}$) (as Pb)
Apr							
13---	--	28	5	23	--	--	--
14---	<3	31	8	38	3	17,000	10
28---	--	16	3	10	--	30,000	8
28---	--	16	2	8	--	32,000	12
29---	--	9	2	5	--	7,700	--
May							
04---	--	12	1	6	--	6,200	4
18---	<3	--	7	3	--	2,800	--
Jun							
04---	--	--	--	--	--	4,200	3
Jul							
20---	--	--	--	--	--	340	<1
Sep							
29---	--	--	--	--	--	870	1
						840	29
						430	--
						400	28
						600	--
						520	3
						85	0
							4

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244415 Sage Creek above Sage Creek Reservoir, near Hayden
Water-quality data, water year October 1981 to September 1982

	Manga-nese, sus-pended total recover- able ($\mu\text{g/L}$ as Mn)	Manga-nese, sus-pended total recover- able ($\mu\text{g/L}$ as Mn)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, dis-solved ($\mu\text{g/L}$ as Hg)	Sel-e-nium, total solved ($\mu\text{g/L}$ as Se)	Sel-e-nium, dis-solved ($\mu\text{g/L}$ as Zn)	Zinc, sus-pended total solvable ($\mu\text{g/L}$ as Zn)	Zinc, dis-recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis-solved ($\mu\text{g/L}$ as Zn)	Sedi-ment, dis-charge, sus-pended (ton/d)
Apr										
13---	400	--	0.1	--	<1	--	100	--	--	810
14---	870	690	.2	<0.1	1	<1	150	--	<12	1660
28---	120	--	.3	--	<1	--	40	--	--	281
28---	120	--	.2	--	1	--	40	--	--	253
29---	90	--	.2	--	1	--	20	--	--	142
May										
04---	130	--	.2	--	1	--	50	--	--	183
18---	30	10	.17	<.1	<1	<1	20	--	<12	26
Jun										
04---	90	50	43	--	--	--	--	--	--	42
Jul										
20---	40	10	27	--	--	--	--	--	--	50
Sep										
29---	100	20	80	--	--	--	30	20	8	18
										.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	pH (stand- ard units)	Temper- ature (°C)	Iron, sus- pended total recov- erable (µg/L as Fe)	Iron, dis- solvable (µg/L as Fe)	Manga- nese, total recov- erable (µg/L as Mn)	Manga- nese, dis- solved (µg/L as Mn)	Manga- nese, sus- pended recov- erable (µg/L as Mn)	Sedi- ment, sus- pended soluble (µg/L as Mn)		
Jun 29---	1250	7.6	20.5	760	670	90	330	50	280	107

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244460 Watering Trough Gulch near Hayden

Water-quality data, water year October 1979 to September 1980

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand ard units)	Temper-ature ($^{\circ}\text{C}$)	Phos-phorus, total (mg/L as P)	Alum-inum, total (mg/L as Al)	Alum-sus-pended (mg/L as Al)	Alum-inum, total (mg/L as Al)	Arsenic, total solved (mg/L as As)	Arsenic, total solved (mg/L as As)
Nov 05---		0.02	1070	8.0	5.5	--	--	--	--	--
Apr 01---	.01	1050	7.8	3.5	--	--	--	--	--	--
15---	.08	825	7.5	2.5	0.120	300	--	--	1	--
22---	2.0	744	7.6	--	.180	180	160	20	1	0
25---	78	--	--	--	.120	230	--	--	1	--
May 28---	.22	875	7.6	14.5	--	--	--	--	--	--
Jun 24---	.05	980	7.7	13.5	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

	Chro-						Copper,			Iron,		
Date	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Copper, dis- solved recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)	
Nov 05---	--	--	--	--	--	--	--	--	--	--	600	--
Apr 01---	--	--	--	--	--	--	--	--	--	--	2100	2100
15---	--	1	--	0	0	--	--	--	--	1000	970	
22---	1	1	<1	4	2	5	0	22	22	1600	1600	
25---	--	0	--	1	0	4	--	--	630	630	--	
May 28---	--	--	--	--	--	--	--	--	--	420	390	
Jun 24---	--	--	--	--	--	--	--	--	310	290		

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924460 Watering Trough Gulch near Hayden		Water-quality data, water year October 1979 to September 1980					
Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, dis- solved ($\mu\text{g/L}$ as Pb)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Hg)
Nov 05---	10	--	--	--	60	30	--
Apr 01---	10	--	--	--	150	140	--
15---	30	2	--	--	80	60	0.0
22---	10	5	4	1	70	50	.0
25---	--	4	--	--	20	--	--
May 28---	30	--	--	--	40	20	--
Jun 24---	20	--	--	--	40	20	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total solvent ($\mu\text{g/L}$ as Se)	Zinc, total, solvent ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- charge, solvent ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (ton/d)
Nov 05---	--	--	--	--	--	--	34
Apr 01---	--	--	--	--	--	--	0.00
15---	--	1	--	10	--	--	.00
22---	0.0	1	0	20	10	7	.02
25---	--	1	--	20	--	--	.33
May 28---	--	--	--	--	--	52	11
Jun 24---	--	--	--	--	--	49	.03
						87	.01

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature ($^{\circ}\text{C}$)	Alum-inum, suspended (as Al)	Alum-inum, total (as Al)	Arsenic, suspended (as As)	Arsenic, total (as As)	Cadmium, total (as Cd)
Oct 30---	0.09	1040	7.6	5.5	--	--	--	--
Nov 26---	.08	1000	7.6	4.5	--	--	--	--
Jan 07---	.04	1110	7.4	4.0	410	390	20	--
28---	.03	1010	8.0	5.0	--	--	--	--
Mar 06---	.02	825	7.8	1.5	--	--	--	--
Apr 01---	.02	1010	8.1	5.0	--	--	--	--
28---	.03	1000	7.8	7.0	190	190	0	0 <1
May 28---	.03	995	7.8	7.0	--	--	--	--
Jun 24---	.02	1020	7.8	9.0	--	--	--	--
Jul 23---	.02	1030	7.9	10.0	40	30	10	--
Aug 10---	.01	1030	8.0	10.0	--	--	--	--
Sep 23---	.01	1040	7.9	10.0	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Copper, sus- pended total recover- able ($\mu\text{g/L}$ as Cu)	Copper, total dis- solved ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended dis- solved ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)
Oct 30----	--	--	920	890	30	--	--
Nov 26----	--	--	460	--	<10	--	--
Jan 07----	--	--	1200	1200	3	3	50
28----	--	--	620	610	10	--	--
Mar 06----	--	--	440	380	60	--	--
Apr 01----	--	--	440	430	10	--	--
28----	4	2	550	530	20	0	50
May 28----	--	--	260	240	20	--	30
Jun 24----	--	--	200	190	10	--	10
Jul 23----	--	--	170	160	10	2	20
Aug 10----	--	--	130	--	<10	--	8
Sep 23----	--	--	130	120	10	--	12
							20
							6
							14

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

Date	Mercury, total as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$)	Mercury, dis- solvable ($\mu\text{g/L}$)	Sele- nium, total as Se)	Sele- nium, sus- pended dis- solved ($\mu\text{g/L}$)	Zinc, total, recoverable ($\mu\text{g/L}$)	Zinc, dis- solved erable ($\mu\text{g/L}$)	Zinc, total, recoverable ($\mu\text{g/L}$)	Zinc, dis- solved erable ($\mu\text{g/L}$)	Sedi- ment, charge, sus- pended (ton/d)
Oct 30---	--	--	--	--	--	--	--	--	--	51 0.01
Nov 26---	--	--	--	--	--	--	--	--	--	48 .01
Jan 07---	--	--	--	--	--	--	50	40	10	29 .00
28---	--	--	--	--	--	--	--	--	48	.00
Mar 06---	--	--	--	--	--	--	--	--	--	35 .00
Apr 01---	--	--	--	--	--	--	--	--	--	18 .00
28---	0.0	0.0	0.0	1	0	20	10	9	60	.00
May 28---	--	--	--	--	--	--	--	--	--	44 .00
Jun 24---	--	--	--	--	--	--	--	--	--	18 .00
Jul 23---	--	--	--	--	--	--	10	0	20	19 .00
Aug 10---	--	--	--	--	--	--	--	--	--	34 .00
Sep 23---	--	--	--	--	--	--	--	--	--	48 .00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09244644 Hubberson Gulch near Hayden

Water-quality data, water year October 1978 to September 1979

Date	Specific conductance ($\mu\text{S}/\text{s}$)	pH	(stand ard units)	Temper ature ($^{\circ}\text{C}$)	Alum inum, sus pended recov erable ($\mu\text{g}/\text{L}$ as Al)	Alum inum, sus pended recov erable ($\mu\text{g}/\text{L}$ as Al)	Arsenic, dis solved total ($\mu\text{g}/\text{L}$ as As)	Arsenic, dis solved total ($\mu\text{g}/\text{L}$ as As)	Cadmium, total recov erable ($\mu\text{g}/\text{L}$ as Cd)	Cadmium, sus pended recov erable ($\mu\text{g}/\text{L}$ as Cd)	Cadmium, dis solved ($\mu\text{g}/\text{L}$ as Cd)
Apr 27---	E0.30	825	7.9	14.0	4400	4400	1	1	--	0	<2
Jun 29---	--	1220	7.8	24.0	--	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

		Water-quality data, water year October 1978 to September 1979						
Date		Copper, sus- pended total recov- erable ($\mu\text{g}/\text{L}$ as Cu) as Cu)	Copper, dis- solved erable ($\mu\text{g}/\text{L}$ as Cu)	Iron, total recov- erable ($\mu\text{g}/\text{L}$ as Fe)	Iron, sus- pended total recov- erable ($\mu\text{g}/\text{L}$ as Fe)	Lead, total recov- erable ($\mu\text{g}/\text{L}$ as Pb)	Lead, sus- pended total recov- erable ($\mu\text{g}/\text{L}$ as Pb)	Manga- nese, sus- pended total recov- erable ($\mu\text{g}/\text{L}$ as Mn)
Apr 27---	6	3	5200	5100	60	38	36	2
Jun 29---	--	--	3000	2900	60	--	--	70

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

0924464 Huberson Gulch near Hayden

Water-quality data, water year October 1978 to September 1979

Date	Manganese, as Mn ($\mu\text{g/L}$)	Mercury, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)	Selenium, sus- pended total soluble ($\mu\text{g/L}$ as Se)	Selenium, total dis- solved total ($\mu\text{g/L}$ as Se)	Selen- ium, dis- solved total ($\mu\text{g/L}$ as Se)	Selen- ium, dis- solved total ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, total recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended	
Apr 27---	50	<0.1	0.0	<0.1	1	0	1	40	40	<3	--	161
Jun 29---	30	--	--	--	--	--	--	--	--	--	--	55

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09244464 Huberson Gulch near Hayden						
Water-quality data, water year October 1979 to September 1980						
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temperature (°C)	Phosphorus, total (mg/L as P)	Alum-inum, suspended (µg/L as Al)
Feb 20---	--	1290	8.0	1.5	--	530
Apr 01---	0.20	1520	8.1	3.0	--	520
15---	2.8	725	7.7	1.0	3.90	--
16---	5.0	680	--	1.5	3.30	13,000
16---	--	--	--	--	2.90	17,000
20---	43	340	7.4	1.0	2.70	11,000
21---	33	345	7.8	5.0	3.10	8,400
22---	32	370	7.8	8.0	2.50	15,000
25---	4.4	--	--	--	.440	2,500
May 01---	6.8	560	--	6.5	.310	2,400
28---	2.2	750	8.4	19.0	--	--
Jun 24---	.58	1000	8.2	24.5	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924464 Hubberson Gulch near Hayden

Water-quality data, water year October 1979 to September 1980

Date	Arsenic, dis- solved ($\mu\text{g/L}$ as As) as Cd)	Cadmium, total recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, sus- pended recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved as Cd)	Chro- mium, total recov- erable ($\mu\text{g/L}$ as Cr)	Cobalt, total recov- erable ($\mu\text{g/L}$ as Co)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recov- erable ($\mu\text{g/L}$ as Cu)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)	
Feb 20---		1	1	0	<1	--	--	11	8	3	2,000
Apr 01---	--	--	--	--	--	--	--	--	--	--	1,700
15---	1	2	--	--	4	40	250	250	250	2	190,000
16---	--	1	--	--	1	40	110	--	--	--	90,000
16---	--	0	--	--	2	20	42	--	--	--	100,000
20---	1	1	0	3	30	10	120	110	110	10	9,600
21---	--	1	--	--	2	30	48	--	--	--	66,000
22---	--	1	--	--	1	30	100	--	--	--	74,000
25---	--	1	--	--	8	2	13	--	--	--	10,000
May 01---	--	0	--	--	1	5	11	--	--	--	9,600
28---	--	--	--	--	--	--	--	--	--	--	860
Jun 24---	--	--	--	--	--	--	--	--	--	--	380

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924464 Huberson Gulch near Hayden									
Water-quality data, water year October 1979 to September 1980									
Date	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Iron, dis- solved soluble ($\mu\text{g/L}$ as Fe)	Lead, total, recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, dis- solved soluble ($\mu\text{g/L}$ as Pb)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, suspended recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved soluble ($\mu\text{g/L}$ as Mn)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)
Feb 20---	1600	430	21	18	3	230	10	220	0.0
Apr 01---	1700	<10	--	--	--	210	40	170	--
15----	--	--	170	170	0	330	--	--	.4
16----	--	--	81	--	--	180	--	--	--
16----	--	--	36	--	--	200	--	--	--
20----	9500	130	98	96	2	1900	30	2	.2
21----	--	--	51	--	--	120	--	--	--
22----	--	--	55	--	--	120	--	--	--
25----	--	--	11	--	--	160	--	--	--
May 01----	--	--	8	--	--	170	--	--	.1
28----	820	40	--	--	--	60	20	40	--
Jun 24----	360	20	--	--	--	60	10	50	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924464 Huberson Gulch near Hayden

Water-quality data, water year October 1979 to September 1980

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sele- nium, total ($\mu\text{g/L}$ as Se)	Sele- nium, sus- pended ($\mu\text{g/L}$ as Se)	Zinc, total ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Feb 20---	0.0	1	0	1	30	20	10	55
Apr 01---	--	--	--	--	--	--	--	--
15---	.0	3	2	1	890	--	--	92
16---	--	4	--	--	490	--	--	10,200
16---	--	3	--	--	570	--	--	4,660
20---	.0	2	2	0	520	510	10	766
21---	--	2	--	--	320	--	--	4,280
22---	--	2	--	--	370	--	--	381
25---	--	1	--	--	70	--	--	405
May 01---	--	1	--	--	50	--	--	433
28---	--	--	--	--	--	--	--	405
Jun 24---	--	--	--	--	--	--	--	4.8

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244464 Hubberson Gulch near Hayden

Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (standard units)	Temper- ature (°C)	Alum- inum, total, recover- able (µg/L as Al)	Alum- inum, sus- pended, recover- able (µg/L as Al)	Arsenic, dis- solved (µg/L as As)	Arsenic, sus- pended total (µg/L as As)	Arsenic, dis- solved (µg/L as As)
Oct 02---	0.03	1750	7.9	15.0	130	0	2	1	1
30---	.14	1360	8.0	3.0	--	--	--	--	--
Nov 26---	.02	1490	7.5	3.0	--	--	--	--	--
Jan 07---	.08	1320	7.6	1.0	230	210	20	--	--
28---	.02	1570	7.5	7.0	--	--	--	--	--
Mar 06---	.17	922	8.0	1.0	--	--	--	--	--
Apr 01---	.30	1090	8.3	.5	920	--	2	--	--
28---	.14	1200	8.2	13.0	730	720	0	1	0
May 28---	.14	1140	8.2	15.0	--	--	--	--	--
Jun 24---	.05	1450	8.0	22.0	--	--	--	--	--
Jul 23---	.01	1570	7.9	23.0	320	300	20	--	--
Aug 10---	.01	1560	7.8	16.0	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924464 Hubberson Gulch near Hayden

Water-quality data, water year October 1980 to September 1981

Date	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Copper, dis- olved ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)
Oct 02---	0	<1	--	--	5	0	6	690	670
30---	--	--	--	--	--	--	--	2900	--
Nov 26---	--	--	--	--	--	--	--	2200	2200
Jan 07---	--	--	--	--	--	--	--	630	610
28---	--	--	--	--	--	--	--	1600	1500
Mar 06---	--	--	--	--	--	--	--	800	760
Apr 01---	1	--	11	3	13	--	--	9700	--
28---	0	<1	--	--	5	4	1	1100	--
May 28---	--	--	--	--	--	--	--	130	120
Jun 24---	--	--	--	--	--	--	--	2100	--
Jul 23---	--	--	--	--	--	--	--	2100	2100
Aug 10---	--	--	--	--	--	--	--	190	170

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244464 Hubberson Gulch near Hayden

Water-quality data, water year October 1980 to September 1981

Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total, recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, dis- solved soluble ($\mu\text{g/L}$ as Pb)	Manga- nese, total, recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total, recover- able ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)
Oct 02---	20	3	1	2	370	40	330	0.0
30---	<10	--	--	--	220	50	170	--
Nov 26----	20	--	--	--	960	80	880	--
Jan 07----	20	6	6	0	60	0	--	--
28----	60	--	--	--	2000	0	2100	--
Mar 06----	40	--	--	--	210	0	230	--
Apr 01----	<10	6	--	--	310	180	130	0.1
28----	<10	0	0	2	230	30	200	.0
May 28----	10	--	--	--	160	30	130	--
Jun 24----	<10	--	--	--	370	90	280	--
Jul 23----	20	1	0	1	1300	100	1200	--
Aug 10----	18	--	--	--	1300	0	1300	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244464 Huberson Gulch near Hayden

Water-quality data, water year October 1980 to September 1981

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sele- nium, total ($\mu\text{g/L}$ as Se)	Sele- nium, sus- pended	Sele- nium, total, dis- solved	Zinc, total, recov- erable	Zinc, dis- solved	Sedi- ment, sus- pended	Sedi- ment, sus- pended	Sedi- ment, sus- pended	Sedi- ment, dis- charge, sus- pended
Oct 02---	0.0	2	0	2	20	20	5	59	0.00	
30---	--	--	--	--	--	--	--	939	.35	
Nov 26---	--	--	--	--	--	--	--	117	.00	
Jan 07---	--	--	--	--	30	20	9	97	.02	
28---	--	--	--	--	--	--	--	29	.00	
Mar 06---	--	--	--	--	--	--	--	57	.03	
Apr 01---	--	3	--	--	80	--	--	598	.48	
28---	.0	0	1	50	40	6	6	136	.05	
May 28---	--	--	--	--	--	--	--	173	.07	
Jun 24---	--	--	--	--	--	--	--	140	.02	
Jul 23---	--	--	--	--	40	10	30	211	.00	
Aug 10---	--	--	--	--	--	--	--	92	.00	

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244464 Huberson Gulch near Hayden

Water-quality data, water year October 1981 to September 1982

Date	Streamflow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature ($^{\circ}\text{C}$)	Phosphorus, total (mg/L as P)	Arsenic, recoverable (mg/L as As)	Aluminum, total (mg/L as Al)	Cadmium, total (mg/L as Cd)	Chromium, total (mg/L as Cr)	Cobalt, total (mg/L as Co)
Apr 13---	8.5	570	--	8.5	--	71,000	11	<1	51	9
13---	14	420	--	4.5	--	83,000	12	<1	20	1
14---	5.7	650	--	11.0	--	41,000	8	<1	24	<1
28---	5.0	490	--	14.0	>1.10	29,000	4	<1	22	8
29---	4.2	500	8.3	5.0	.430	9,600	2	1	18	5
May 04---	7.5	420	--	10.0	.640	15,000	4	<1	26	4
18---	3.4	520	--	13.0	.140	2,100	1	<1	11	7

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244464 Huberson Gulch near Hayden

Water-quality data, water year October 1981 to September 1982

Date	Copper, total recoverable ($\mu\text{g/L}$ as Cu) as Fe)	Iron, total recoverable ($\mu\text{g/L}$ as Pb) as Fe)	Lead, total recoverable ($\mu\text{g/L}$ as Mn) as Hg)	Manganese, total recoverable ($\mu\text{g/L}$ as Se)	Mercury, total recoverable ($\mu\text{g/L}$ as Hg)	Selenium, total recoverable ($\mu\text{g/L}$ as Se)	Zinc, total recoverable ($\mu\text{g/L}$ as Zn)	Sediment, discharge, sus-pended (ton/d)	
Apr 13---	130	110,000	<1	1800	0.3	1	560	6900	158
13---	15	150,000	2	2500	.3	<1	710	8390	317
14---	4	72,000	<1	1300	.2	1	360	4460	69
28---	58	54,000	16	660	.2	1	260	2800	38
29---	15	140,000	3	260	.2	<1	70	607	6.9
May 04---	23	27,000	3	420	.2	1	130	1220	25
18---	6	2,900	2	90	.1	1	20	99	.91

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

0924470 Stokes Gulch near Hayden									
Water-quality data, water year October 1979 to September 1980									
Date	Specific conductance (ft ³ /s)	pH (standard units)	Temperature (°C)	Phosphorus, total (mg/L as P)	Alum- inum, total pended	Alum- inum, recoverable (µg/L as Al)	Alum- inum, solved (µg/L as As)	Arsenic, total pended (µg/L as As)	Arsenic, sus- pended (µg/L as As)
Apr 20---	419	980	7.6	5.5	1.60	10,000	9900	60	8
20---	320	960	7.6	--	1.60	10,000	--	--	--
20---	444	820	7.6	--	2.00	11,000	--	--	--
25---	16	1650	--	12.0	.470	6,500	--	--	--
May 01---	4.9	3400	--	11.5	.120	1,400	--	--	3
Cadmium, suspended									
Arsenic, dissolved	(µg/L as As)			Cadmium, total recoverable (µg/L as Cd)	Cadmium, dis- solvable (µg/L as Cd)	Cobalt, total recoverable (µg/L as Cr)	Chromium, total recoverable (µg/L as Co)	Copper, total recoverable (µg/L as Cu)	Copper, sus- pended (µg/L as Cu)
Apr 20---	4	1	1	0	--	20	37	34	3
20---	--	3	--	--	0	5	27	--	--
20---	--	2	--	--	2	10	40	--	--
25---	--	1	--	--	12	3	16	--	--
May 01---	--	0	--	--	1	1	6	--	--
Iron, total recoverable									
Copper, dissolved									
Iron, total recoverable									

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924470 Stokes Gulch near Hayden									
Water-quality data, water year October 1979 to September 1980									
Date	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Iron, dis- solved ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)
			Apr	20---	20---	20---	20---	20---	20---
May 01---	--	--	41,000	40	35	35	0	570	560
				--	32	--	--	500	--
				--	39	--	--	620	--
				--	14	--	--	160	--
				--	--	--	--	--	--
				--	--	--	40	--	--
									.1
Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selen- ium, total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended total ($\mu\text{g/L}$ as Se)	Selen- ium, dis- solved ($\mu\text{g/L}$ as Se)	Zinc, total recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
			Apr	20---	20---	20---	20---	20---	20---
May 01---	0.0	27	3	24	220	210	10	1790	2030
	--	28	--	--	200	--	--	1590	1370
	--	24	--	--	270	--	--	1900	2280
	--	26	--	--	70	--	--	257	11
	--	79	--	--	30	--	--	59	.78

Table 4.--Summary of selected water-quality data collected at surface-water gauging stations in the southern Tampa River basin--Continued

09244470 Stokes Gulch near Hayden
Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature (°C)	Alum-inum, sus-pended recov-erablae ($\mu\text{g/L}$ as Al)	Alum-inum, sus-pended recov-erablae ($\mu\text{g/L}$ as Al)	Arsenic, sus-pended total ($\mu\text{g/L}$ as As)	Arsenic, sus-pended total ($\mu\text{g/L}$ as As)	Cadmium, sus-pended recov-erablae ($\mu\text{g/L}$ as Cd)
Apr 01---	0.12	10,000	8.6	8.5	60	50	10	1	0
May 13---	1.0	7,340	8.4	12.0	--	--	--	--	--
May 28---	.25	9,970	8.4	17.0	--	--	--	--	--
Apr 01---	0	9	4	5	120	20	100	0	0
May 13---	--	--	--	--	110	40	70	--	--
May 28---	--	--	--	--	80	10	70	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924470 Stokes Gulch near Hayden									
Water-quality data, water year October 1980 to September 1981									
Date	Manganese as Mn)	Mercury, as Hg)	Mercury, sus- pended	Mercury, dis- solvable erable	Seleni- um, sus- pended	Seleni- um, total	Zinc, dis- solved	Zinc, total	Zinc, sus- pended
Apr 01---	30	0.1	0.0	0.1	270	0	300	30	10
May 13---	30	--	--	--	--	--	--	--	--
28---	30	--	--	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09244470 Stokes Gulch near Hayden

Water-quality data, water year October 1981 to September 1982

Date	Specific conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)	Alum- inum, total recover- able ($\mu\text{g/L}$ as Al)	Arsenic, total recover- able ($\mu\text{g/L}$ as As)	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)
Apr 13---	25	2500	9.5	7,000	2	<1	21	2
13---	33	2600	10.0	9,800	3	<1	25	4
14---	11	--	12.5	21,000	3	<1	25	13
14---	41	1780	11.0	31,000	5	<1	28	18
14---	59	1780	11.0	21,000	3	1	27	8
								25

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

0924470 Stokes Gulch near Hayden

Water-quality data, water year October 1981 to September 1982

Date	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)	Selen- ium, total recover- able ($\mu\text{g/L}$ as Se)	Zinc, total recover- able ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Apr 13---	6,800	6	100	0.1	42	40	201
	9,300	<1	110	.2	45	50	319
13---	15,000	6	170	.2	27	70	28
14---	30,000	4	260	.2	26	140	464
14---	19,000	8	190	.2	38	90	14
						1110	82
							177

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250507 Wilson Creek above Taylor Creek near Axial

Water-quality data, water year October 1980 to September 1981

Date	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (stand- ard units)	Temperature ($^{\circ}\text{C}$)	Alum- inum, total recover- able ($\mu\text{g}/\text{L}$ as Al)	Alum- inum, total recover- able ($\mu\text{g}/\text{L}$ as Al)	Alum- inum, total recover- able ($\mu\text{g}/\text{L}$ as Al)	Arsenic, sus- pended total soluble ($\mu\text{g}/\text{L}$ as As)	Arsenic, sus- pended total soluble ($\mu\text{g}/\text{L}$ as As)	Arsenic, sus- pended total soluble ($\mu\text{g}/\text{L}$ as As)
Apr 01---	1.4	1670	8.2	11.0	37,000	--	--	5	--
28---	1.2	1780	8.1	19.5	8,000	8000	30	3	2

Date	Cadmium, total recover- able ($\mu\text{g}/\text{L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g}/\text{L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g}/\text{L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g}/\text{L}$ as Co)	Copper, total recover- able ($\mu\text{g}/\text{L}$ as Cu)	Copper, sus- pended total recover- able ($\mu\text{g}/\text{L}$ as Cu)	Copper, sus- pended total soluble ($\mu\text{g}/\text{L}$ as Cu)	Copper, sus- pended total soluble ($\mu\text{g}/\text{L}$ as Cu)	Iron, sus- pended total recover- able ($\mu\text{g}/\text{L}$ as Fe)
Apr 01---	1	--	24	20	80	--	--	--	--
28---	0	<1	--	--	32	28	4	46,000	46,000

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250507 Wilson Creek above Taylor Creek near Axial										
Water-quality data, water year October 1980 to September 1981										
Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe) as Pb)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recover- able ($\mu\text{g/L}$ as Pb)	Lead, dis- solved recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recover- able ($\mu\text{g/L}$ as Hg)	
					1200 500	1200 480	30 20	0.2 .1	-- 0.1	
Apr 01--- 28---	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Selen- ium, sus- pended total ($\mu\text{g/L}$ as Se)	Selen- ium, sus- pended total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	Sedi- ment, dis- charge, sus- pended (ton/d)	
					-- 9	-- 110	-- 100	-- 10	-- 1310	-- 4.2
Apr 01--- 28---	0.0	6	6	-- 0	330	330	3890	15	3890	15
					110	110	1310	4.2	1310	4.2

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250507 Wilson Creek above Taylor Creek near Axial

Water-quality data, water year October 1981 to September 1982

Date	Streamflow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	Temperature (°C)	Alumnum, Phosphorus, total recoverable (mg/L as P)	Cadmium, Arsenic, total recoverable (µg/L as As)	Chromium, Cobalt, total recoverable (µg/L as Cr)
Apr 12---		1.4	--	--	30,000	8 <1 27 20
May 19---	13	1100	9.5	>1.10	100,000	15 <1 44 3
	16	--	--	>1.10	77,000	14 <1 36 10
21---						

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

	Copper, total recover- able ($\mu\text{g/L}$ as Cu) Date	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)	Selena- num, total recover- able ($\mu\text{g/L}$ as Se)	Zinc, total recover- able ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Apr 12---		56	46,000	27	1500	0.2	6	340
May 19---	320	170,000	<1	5400	.3	3	1200	18,700
21---	200	110,000	3	3100	.3	2	770	14,100
							3,640	14

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Streamflow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standards units)	Temperature ($^{\circ}\text{C}$)	Alum-inum, suspended total	Alum-inum, dissolved	Arsenic, suspended total	Arsenic, total solved	Arsenic, dissolved total	Cadmium, total solved	Cadmium, recoverable	Cadmium, suspended
Oct 25---	0.28	1950	8.2	5.5	--	--	--	--	--	--	--	--
Apr 17----	.03	490	7.9	8.5	1,200	20	1	--	1	--	0	--
May 09----	.01	1450	8.3	9.0	370	370	<100	--	--	--	--	--
21----	2.4	960	7.6	19.0	13,000	13,000	20	1	--	.2	--	0
Sep 06----	.01	1380	8.5	13.0	110	110	<100	1	<1	1	--	0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1978 to September 1979

Date	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)	Iron, dis- solved recover- able ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)
Oct 25---	--	--	--	27,000	27,000	110	--	--	840
Apr 17---	<2	6	6	--	1,400	1,200	250	22	--
May 09---	--	--	--	--	3,200	3,200	20	44	--
21---	--	23	22	<2	14,000	14,000	<10	23	23
Sep 06---	<2	2	1	<2	110	--	<10	5	5
								--	<10
									9

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1978 to September 1979

Date	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Mercury, total recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved solvable ($\mu\text{g/L}$ as Hg)	Sel- nium, sus- pended total solvable ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total solvable ($\mu\text{g/L}$ as Se)	Sel- nium, total, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved recover- able ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended solvable ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Oct 25---	30	--	--	--	--	--	--	--	--	--	--	12
Apr 17---	20	<0.1	0.1	<0.1	1	1	<1	20	20	<3	193	0.02
May 09---	30	--	--	--	--	--	--	40	0	50	304	.00
May 21---	150	<0.1	0.1	<0.1	6	0	6	100	90	<20	3,730	24
Sep 06---	<1	<0.1	0.0	<0.1	<1	0	1	<20	0	<3	15	.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1979 to September 1980

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature ($^{\circ}\text{C}$)	Phosphorus, total (mg/L as P)	Alum-inum, suspended (total recoverable) ($\mu\text{g}/\text{L}$ as Al)	Alum-inum, dissolved ($\mu\text{g}/\text{L}$ as Al)	Arsenic, suspended (total) ($\mu\text{g}/\text{L}$ as As)	Arsenic, total (as As) ($\mu\text{g}/\text{L}$ as As)
Nov 08---	0.01	1340	8.5	1.0	--	--	--	--	--
Mar 19---	.15	1220	8.3	6.0	--	--	--	--	--
Apr 14---	.06	1400	8.1	16.0	0.450	11,000	--	--	--
May 05---	.18	1350	--	22.5	1.10	27,000	--	3	--
19---	4.2	1010	8.2	14.0	.240	2,300	2300	30	3
22---	4.5	975	--	19.5	--	4,100	--	2	--
Jun 05---	2.8	1080	8.1	12.0	.070	1,000	--	--	--
25---	1.3	1180	7.9	18.0	--	--	--	--	--
Jul 30---	.26	1250	8.2	17.5	--	--	--	--	--
Aug 26---	.20	1250	8.2	20.5	--	770	760	10	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1979 to September 1980

Date	Arsenic, dis- solved ($\mu\text{g/L}$ as As)	Cadmium, total recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, total dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recov- erable ($\mu\text{g/L}$ as Cr)	Cobalt, total recov- erable ($\mu\text{g/L}$ as Co)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recov- erable ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)
Nov 08---	--	--	--	--	--	--	--	--
Mar 19----	--	--	--	--	--	--	--	370
Apr 14----	--	1	--	6	6	15	--	--
May 05----	--	1	--	1	20	50	--	23,000
19----	2	0	<1	1	5	13	10	13,000
22----	--	1	--	0	4	44	--	31,000
Jun 05----	--	1	--	2	2	7	--	6,700
25----	--	--	--	--	--	--	--	4,300
Jul 30----	--	--	--	--	--	--	--	1,900
Aug 26----	--	--	--	--	--	--	--	1,400
								100
								1,100

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

Date	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Iron, dis- solved ($\mu\text{g/L}$ as Pb)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recover- able ($\mu\text{g/L}$ as Pb)	Lead, dis- solved ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Mercury, total recover- able ($\mu\text{g/L}$ as Hg)
Nov 08----	--	10	--	--	--	50	20	30	--
Mar 19----	23,000	<10	--	--	--	890	770	120	--
Apr 14----	13,000	<10	8	--	--	500	460	40	0.0
May 05----	--	--	32	--	--	1000	--	--	.1
19----	--	<10	10	8	2	250	210	40	.1
22----	--	--	8	--	--	190	--	--	.1
Jun 05----	--	--	4	--	--	120	--	--	--
25----	--	<10	--	--	--	70	60	10	--
Jul 30----	--	<10	--	--	--	0	--	<1	--
Aug 26----	--	<10	4	4	0	40	40	3	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1979 to September 1980

Date	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sele- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Sele- nium, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, total recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (mg/L)	Sedi- ment, sus- pended (ton/d)
Nov 08----	--	--	--	--	--	--	73	0.00
Mar 19----	--	--	--	--	--	--	1530	.62
Apr 14----	--	--	2	--	--	110	--	762
May 05----	--	0.1	5	--	--	210	--	2090
19----	--	0.0	5	1	4	60	<3	933
22----	--	--	2	--	--	110	--	602
Jun 05----	--	--	--	--	--	40	--	253
25----	--	--	--	--	--	--	--	365
Jul 30----	--	--	--	--	--	--	--	1.9
Aug 26----	--	--	--	--	--	50	<3	122
								.02
								.07

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	pH (stand ard units)	Temper-ature (°C)	Alum-inum, sus-pended total recoverable (µg/L as Al)	Alum-inum, sus-pended total recoverable (µg/L as Al)	Alum-inum, sus-pended total recoverable (µg/L as Al)	Arsenic, total (µg/L as As)	Arsenic, total (µg/L as As)
Oct 29---	0.17	1340	8.2	4.0	--	--	--	--	--
Nov 26---	.14	1400	8.0	.5	--	--	--	--	--
Dec 23---	.40	1410	8.0	.0	180	160	20	--	--
Feb 24---	.03	730	8.3	.0	--	--	--	--	--
Apr 01---	.08	1080	8.6	10.5	740	--	--	0	--
28---	.02	1350	8.4	22.5	340	330	10	1	1
May 29---	.04	1300	8.3	15.5	--	--	--	--	--
Jun 12---	.12	1680	8.0	25.5	270,000	--	--	70	--
Jul 26---	.14	1360	--	17.0	51,000	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1980 to September 1981

Date	Cadmium, total ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solvable ($\mu\text{g/L}$ as Cd)	Chro- mium, total recover- able ($\mu\text{g/L}$ as Cr)	Cobalt, total recover- able ($\mu\text{g/L}$ as Co)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)
Oct 29----	--	--	--	--	--	--	--	1,100	1,100
Nov 26----	--	--	--	--	--	--	--	400	370
Dec 23----	--	--	--	--	--	--	--	1,100	1,000
Feb 24----	--	--	--	--	--	--	--	490	450
Apr 01----	1	--	13	0	14	--	--	7,300	7,200
28----	0	<1	--	--	6	4	--	470	450
May 29----	--	--	--	--	--	--	--	250	230
Jun 12----	20	--	32	140	350	--	--	290,000	290,000
Jul 26----	0	--	42	30	160	--	--	63,000	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1980 to September 1981

Date	Iron, dis- solved ($\mu\text{g/L}$ as Fe) as Pb)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, dis- solved soluble ($\mu\text{g/L}$ as Pb)	Manga- nese, total recoverable ($\mu\text{g/L}$ as Mn)	Manga- nese, sus- pended recoverable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Manga- nese, total recoverable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recoverable ($\mu\text{g/L}$ as Hg)
Oct 29---	10	--	--	--	110	50	60	--	--
Nov 26---	30	--	--	--	130	30	100	--	--
Dec 23---	70	3	1	2	160	50	110	--	--
Feb 24---	40	--	--	--	90	10	80	--	--
Apr 01---	70	5	--	--	270	240	30	0.1	--
28---	20	0	0	3	30	30	5	.3	.3
May 29---	20	--	--	--	20	10	9	--	--
Jun 12---	50	120	--	--	11,000	11,000	60	3.1	--
Jul 26---	--	65	--	--	1,700	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250510 Taylor Creek at mouth near Axial

Water-quality data, water year October 1980 to September 1981

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Zinc, total solved ($\mu\text{g/L}$ as Zn)	Zinc, reco- vable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended reco- vable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Oct 29---	--	--	--	--	--	--	--	166 0.08
Nov 26---	--	--	--	--	--	--	--	66 .02
Dec 23---	--	--	--	--	20	10	6	132 .14
Feb 24---	--	--	--	--	--	--	--	38 .00
Apr 01---	--	3	--	--	60	--	--	541 .12
28---	0.0	1	0	1	20	10	8	34 .00
May 29---	--	--	--	--	--	--	--	21 .00
Jun 12---	--	0	--	--	2000	--	--	25,100 8.1
Jul 26---	--	--	--	--	410	--	--	3,690 1.4

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250600 Wilson Creek near Axial

Water-quality data, water year October 1978 to September 1979

	Specific conductance ($\mu\text{S}/\text{cm}$)	pH	(standard units)	Temperature ($^{\circ}\text{C}$)	Alum-inum, total recoverable ($\mu\text{g/L}$ as Al)	Alum-inum, suspended recoverable ($\mu\text{g/L}$ as Al)	Arsenic, suspended	Arsenic, total dissolved ($\mu\text{g/L}$ as As)	Cadmium, total dissolved ($\mu\text{g/L}$ as Cd)	Cadmium, suspended
Nov 09---	0.31	2060	8.4	10.0	180	160	20	--	--	--
May 09---	18	1000	8.0	6.0	23,000	23,000	80	17	--	0
Sep 06---	.81	1700	8.1	11.0	150	150	<100	1	<1	1
									--	0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250600 Wilson Creek near Axial

Water-quality data, water year October 1978 to September 1979

Date	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Copper, total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recover- able ($\mu\text{g/L}$ as Cu)	Iron, total recover- able ($\mu\text{g/L}$ as Cu)	Iron, sus- pended recover- able ($\mu\text{g/L}$ as Fe)	Lead, total recover- able ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recover- able ($\mu\text{g/L}$ as Pb)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)	Manga- nese, total recover- able ($\mu\text{g/L}$ as Mn)			
Nov 09----	--	--	--	240	230	<10	19	17	2	520	420	
May 09----	--	31	31	--	37,000	37,000	40	35	--	1300	1200	
Sep 06----	<2	2	0	2	150	--	<10	6	6	--	30	0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250600 Wilson Creek near Axial

Water-quality data, water year October 1978 to September 1979

	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Mercury, total recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Selene- rium, dis- solved total ($\mu\text{g/L}$ as Se)	Selene- rium, sus- pended total ($\mu\text{g/L}$ as Se)	Zinc, total recov- erable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (mg/L ton/d)
Nov								
09---	100	--	--	--	--	<20	0	20
May								
09---	90	0.4	0.4	<0.1	5	2	3	250
Sep								
06---	50	<.1	.0	<.1	10	0	11	30
								<20
								20
								27
								.06

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250600 Wilson Creek near Axial						
Water-quality data, water year October 1979 to September 1980						
Date	Streamflow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temperature ($^{\circ}\text{C}$)	Phosphorus, total (mg/L as P)	Alum-inum, suspended (mg/L as Al)
Feb 19----	17	309	7.8	0.5	--	220
May 06----	11	850	--	12.0	3.70	20,000
May 19----	34	800	7.7	12.0	8.00	36,000
						36,000
						360
						38
						36
						19
						38
						18
						20
						1400
						0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250600 Wilson Creek near Axial									
Water-quality data, water year October 1979 to September 1980									
Date	Arsenic, dis- solved ($\mu\text{g/L}$ as As)	Cadmium, total recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, sus- pended recov- erable ($\mu\text{g/L}$ as Cd)	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total recov- erable ($\mu\text{g/L}$ as Cr)	Cobalt, total recov- erable ($\mu\text{g/L}$ as Co)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recov- erable ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)
Feb 19---		2	4	4	0	--	--	130	130
May 06---	--	5	--	--	0	90	270	--	--
19---	--	2	0	0	1	30	380	380	150,000
									200,000

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250600 Wilson Creek near Axial

Water-quality data, water year October 1979 to September 1980

Date	Iron, sus- pended recov- erable solved ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable solved ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable solved ($\mu\text{g/L}$ as Pb)	Manga- nese, total dis- solved ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved ($\mu\text{g/L}$ as Mn)	Mercury, sus- pended recov- erable solvable ($\mu\text{g/L}$ as Hg)
Feb 19---	79,000	40	0	0	3000	3000	0.2
May 06---	--	--	210	--	5500	--	--
19---	200,000	10	0	0	9100	9000	1.4

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250600 Wilson Creek near Axial									
Water-quality data, water year October 1979 to September 1980									
	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, sus- pended total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended total solved ($\mu\text{g/L}$ as Se)	Zinc, total, recov- erable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)	
Feb 19---	0.0	3	2	1	650	640	10	5,480	252
May 06---	--	7	--	--	1100	--	--	17,800	529
19---	.0	18	13	5	0	0	10	37,200	3410

Table 4.--Summary of selected water-quality data collected at surface-water
gaging stations in the southern Tampa River basin--Continued

Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	Temperature (°C)	Alum- inum,			Cadmium, total,			Chro- mium, total,		
				recoverable (µg/L as Al)	recoverable (µg/L as Cd)	recoverable (µg/L as Cr)	recoverable (µg/L as Cd)	recoverable (µg/L as Cd)	recoverable (µg/L as Cd)	Cobalt, total (µg/L as Co)	recoverable (µg/L as Cd)	recoverable (µg/L as Cd)
Jun 12---	E2.1	1700	24.0	14,000	3	29	3	29	10	134	1780	1780
<hr/>												
Date	Stream-flow, instantaneous (ft ³ /s)	Specific conductance (µS/cm)	Temperature (°C)	Manga- nese,			Zinc, total,			Sedi- ment, sus- pended (mg/L as Zn)		
				recoverable (µg/L as Fe)	recoverable (µg/L as Pb)	recoverable (µg/L as Mn)	recoverable (µg/L as Cd)	recoverable (µg/L as Cd)	recoverable (µg/L as Cd)	Sediment, sus- pended (mg/L as Zn)		
Jun 12---	46	27,000	10	700	10	700	10	700	10	130	1780	1780

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250610 Jubb Creek near Axial

Water-quality data, water year October 1978 to September 1979

	Specific conduct- ance ($\mu\text{S}/\text{cm}$)	pH (stand- ard units)	Temper- ature ($^{\circ}\text{C}$)	Alum- inum, total recov- erable ($\mu\text{g}/\text{L}$ as Al)	Alum- inum, sus- pended recov- erable ($\mu\text{g}/\text{L}$ as Al)	Arsenic, sus- pended total soluble ($\mu\text{g}/\text{L}$ as As)	Arsenic, total soluble ($\mu\text{g}/\text{L}$ as As)	Cadmium, total soluble ($\mu\text{g}/\text{L}$ as Cd)	Cadmium, sus- pended recover- able ($\mu\text{g}/\text{L}$ as Cd)	
May	09---	0.06	1400	8.1	8.0	230	210	20	1	--
	18---	.02	1500	8.0	23.5	--	--	--	--	--
Jun	25---	.16	1350	7.6	20.0	--	--	--	--	--
	23---	.11	1470	8.5	17.5	--	--	--	--	--
Sep	06---	.01	1500	8.3	9.0	170	170	<100	1	<1
								1	--	0

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Copper, total recov- erable ($\mu\text{g/L}$ as Cu)	Copper, sus- pended recov- erable ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)
May 09---	<2	--	0	--	230	220	<10	9
18---	--	--	--	270	250	20	--	--
Jun 25---	--	--	--	120	0	130	--	--
Jul 23---	--	--	--	2100	2100	<10	--	--
Sep 06---	<2	2	0	4	80	--	<10	2
							--	2
							<10	8

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250610 Jubb Creek near Axial

Water-quality data, water year October 1978 to September 1979

Date	Manganese, dis- solved ($\mu\text{g/L}$ as Mn)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved recov- erable ($\mu\text{g/L}$ as Hg)	Selenium, sus- pended total ($\mu\text{g/L}$ as Se)	Selenium, sus- pended total ($\mu\text{g/L}$ as Se)	Selenium, dis- solved total ($\mu\text{g/L}$ as Se)	Zinc, sus- pended total recovered erable ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended total recovered erable ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
May 09---	2	0.2	<0.1	2	0	2	20	0	20
18---	<10	--	--	--	--	--	--	--	1
Jun 25---	<1	--	--	--	--	--	--	--	.00
Jul 23---	30	--	--	--	--	--	--	--	21
Sep 06---	2	<.1	.0	<.1	1	0	<20	0	4
								<3	43
									.00

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

	Stream-flow, instantaneous (ft ³ /s)	Specific conductance ($\mu\text{S}/\text{cm}$)	pH (standard units)	Temper- ature (°C)	Phos- phorus, total (mg/L as P)	Alum- inum, total recoverable ($\mu\text{g}/\text{L}$ as Al)	Alum- inum, total recoverable ($\mu\text{g}/\text{L}$ as Al)	Arsenic, sus- pended total soluble ($\mu\text{g}/\text{L}$ as As)	Arsenic, sus- pended total total ($\mu\text{g}/\text{L}$ as As)
Date									
Nov									
08---	0.02	1480	8.3	1.0	--	--	--	--	--
Feb	5.6	550	7.9	.5	--	5800	5700	70	3
Mar	.09	1750	8.2	.0	--	--	--	--	--
Apr	.06	1680	8.2	9.5	0.020	150	--	--	--
May	2.0	1200	8.2	17.5	.010	100	80	20	1
Jun	1.1	1400	7.8	18.5	--	--	--	--	--
Jul	.42	1600	8.2	15.5	--	--	--	--	--
30---									

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250610 Jubb Creek near Axial
Water-quality data, water year October 1979 to September 1980

Date	Arsenic, dis- solved ($\mu\text{g/L}$ as As)	Cadmium, total recover- able ($\mu\text{g/L}$ as Cd)	Cadmium, sus- pended	Cadmium, dis- solved ($\mu\text{g/L}$ as Cd)	Chro- mium, total	Cobalt, total	Copper, total	Copper, sus- pended	Copper, dis- solved	Iron, total recover- able ($\mu\text{g/L}$ as Fe)
Nov 08---	--	--	--	--	--	--	--	--	--	--
Feb 19---	1	1	0	<1	--	--	15	12	3	7900
Mar 19---	--	--	--	--	--	--	--	--	--	340
Apr 14---	--	0	--	--	--	1	3	--	--	180
May 19---	1	0	--	<1	4	1	4	1	3	140
Jun 25---	--	--	--	--	--	--	--	--	--	510
Jul 30---	--	--	--	--	--	--	--	--	--	100

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250610 Jubb Creek near Axial

Water-quality data, water year October 1979 to September 1980

	Iron, sus- pended recov- erable ($\mu\text{g/L}$ as Fe)	Iron, total dis- solved ($\mu\text{g/L}$ as Fe)	Lead, sus- pended recov- erable ($\mu\text{g/L}$ as Pb)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, dis- solved recov- erable ($\mu\text{g/L}$ as Mn)	Manga- nese, total recov- erable ($\mu\text{g/L}$ as Hg)	Mercury, sus- pended recov- erable ($\mu\text{g/L}$ as Hg)
Nov									
08---	--	<10	--	--	8	6	2	--	--
Feb									
19---	7900	40	12	12	0	160	150	10	0.0
Mar									
19---	320	20	--	--	10	8	2	--	--
Apr									
14---	170	<10	0	--	0	0	<1	--	--
May									
19---	--	<10	2	1	1	10	--	<1	.1
Jun									
25---	--	<10	--	--	--	20	--	<3	--
Jul									
30---	--	<10	--	--	--	10	--	<1	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

Date	Mercury, dis- solved ($\mu\text{g/L}$ as Hg)	Sel- nium, total ($\mu\text{g/L}$ as Se)	Sel- nium, sus- pended	Zinc, total soluble ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended recover- able	Zinc, dis- solved recover- able ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended ($\mu\text{g/L}$ as Zn)	Sedi- ment, sus- pended (ton/d)
Nov 08----	--	--	--	--	--	--	--	0	0.00
Feb 19----	0.0	1	0	1	70	70	<3	314	4.7
Mar 19----	--	--	--	--	--	--	--	23	.00
Apr 14----	--	--	--	--	30	--	--	5	.00
May 19----	.0	5	0	5	20	--	<3	10	.05
Jun 25----	--	--	--	--	--	--	--	26	.07
Jul 30----	--	--	--	--	--	--	--	44	.05

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250610 Jubb Creek near Axial									
Water-quality data, water year October 1980 to September 1981									
	Specific conductance ($\mu\text{S}/\text{cm}$)	pH	(standard units)	Temperature ($^{\circ}\text{C}$)	Alum-inum, total recoverable ($\mu\text{g/L}$ as Al)	Alum-inum, sus-pended recoverable ($\mu\text{g/L}$ as Al)	Arsenic, sus-pended total soluble ($\mu\text{g/L}$ as As)	Arsenic, total soluble ($\mu\text{g/L}$ as As)	Cadmium, total recoverable ($\mu\text{g/L}$ as Cd)
Oct 29----	0.19	1700	8.0	1.0	--	--	--	--	--
Nov 26----	.01	2200	7.8	.0	--	--	--	--	--
Dec 23----	.66	1540	7.8	.0	20	0	20	--	--
Feb 24----	.14	1490	8.2	.0	--	--	--	--	--
Apr 01----	.29	1440	8.3	.0	--	--	--	--	--
28----	.04	1700	8.3	23.0	70	60	0	1	0
May 29----	.19	1700	8.2	13.0	--	--	--	2	0
Jun 25----	.14	1740	8.3	17.0	--	--	--	--	--
Jul 15----	.05	1740	8.4	16.5	80	60	20	--	--
Aug 07----	.06	1710	8.6	26.0	--	--	--	--	--
Sep 17----	.11	1770	8.5	9.5	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250610 Jubb Creek near Axial

Water-quality data, water year October 1980 to September 1981

	Copper, sus- pended total recover- able ($\mu\text{g/L}$ as Cu)	Copper, sus- pended Copper, dis- solved solvent ($\mu\text{g/L}$ as Cu)	Iron, total recov- erable ($\mu\text{g/L}$ as Fe)	Iron, sus- pended total recov- erable ($\mu\text{g/L}$ as Fe)	Lead, total recov- erable ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended total recov- erable ($\mu\text{g/L}$ as Mn)
Oct						
29	--	--	90	--	<10	--
Nov	--	--	210	160	50	--
Dec	--	--	60	40	20	--
23	--	--	110	90	20	--
Feb	--	--	240	230	10	--
24	--	--	110	--	--	--
Apr	--	--	<10	0	0	--
01	--	0	5	--	--	--
28	4	0	110	--	--	--
May						
29	--	--	50	40	10	--
Jun	--	--	160	--	<10	--
25	--	--	90	70	20	--
Jul	--	--	40	--	<10	--
15	--	--	40	--	--	--
Aug	--	--	40	--	--	--
07	--	--	40	--	--	--
Sep						
17	--	--	40	--	<10	--

Table 4.—Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin—Continued

09250610 Jubb Creek near Axial

Water-quality data, water year October 1980 to September 1981

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250700 Morgan Gulch near Axial

Water-quality data, water year October 1980 to September 1981

Date	Stream-flow, instantaneous (ft ³ /s)	Speci- fic con- duct- ance (µS/cm)	pH (stand- ard units)	Temper- ature (°C)	Alum- inum, total recov- erable (µg/L as Al)	Alum- inum, dis- solved (µg/L as Al)	Arsenic, sus- pended total recov- erable (µg/L as Al)	Arsenic, total dis- solved (µg/L as As)	Arsenic, total reco- vable (µg/L as Cd)	Cadmium, total reco- vable (µg/L as Cd)
Jan 21---	0.62	1690	8.2	0.0	--	--	--	--	--	--
Feb 24---	.68	1480	8.3	.0	--	--	--	--	--	--
Apr 01---	1.6	1550	8.4	14.0	--	--	--	--	--	--
28---	1.2	1550	8.3	21.5	620	620	0	1	0	<1
May 29---	1.9	1520	8.2	13.5	--	--	--	--	--	--
Jun 25---	.27	1500	8.2	16.0	--	--	--	--	--	--
Jul 15---	.59	1500	8.2	15.0	610	590	20	--	--	--
Aug 07---	.38	1450	8.4	22.5	--	--	--	--	--	--
Sep 17---	.24	1480	8.3	11.0	--	--	--	--	--	--

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250700 Morgan Gulch near Axial

Water-quality data, water year October 1980 to September 1981

Date	Copper, sus- pended total recover- able ($\mu\text{g/L}$ as Cu)	Copper, dis- solved ($\mu\text{g/L}$ as Cu)	Iron, total, recov- erable ($\mu\text{g/L}$ as Fe)	Iron, sus- pended ($\mu\text{g/L}$ as Fe)	Lead, total, recov- erable ($\mu\text{g/L}$ as Pb)	Lead, sus- pended ($\mu\text{g/L}$ as Pb)	Manga- nese, sus- pended ($\mu\text{g/L}$ as Mn)
Jan 21----	--	--	1500	10	--	--	70
Feb	--	--				40	40
24----	--	--	350	20	--	--	30
Apr 01----	--	--	680	80	--	--	40
28----	4	3	170	10	0	0	10
May 29----	--	--	160	20	--	--	30
Jun 25----	--	--	150	10	--	--	30
Jul 15----	--	--	590	20	2	1	20
Aug 07----	--	--	180	11	--	--	5
Sep 17----	--	--	350	<10	--	--	15
						30	10
						17	

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Tampa River basin--Continued

09250700 Morgan Gulch near Axial

Water-quality data, water year October 1980 to September 1981

	Mercury, sus- pended total recover- able ($\mu\text{g/L}$ as Hg)	Mercury, dis- solved total ($\mu\text{g/L}$ as Hg)	Selen- ium, sus- pended total solvent ($\mu\text{g/L}$ as Se)	Selen- ium, dis- solved total ($\mu\text{g/L}$ as Zn)	Zinc, sus- pended total reco- verable ($\mu\text{g/L}$ as Zn)	Zinc, dis- solved total reco- verable ($\mu\text{g/L}$ as Zn)	Sedi- ment, dis- charge, sus- pended (ton/d)
Date							
Jan 21---	--	--	--	--	--	--	0.29
Feb 24---	--	--	--	--	--	--	.17
Apr 01---	--	--	--	--	--	--	95
Apr 28---	0.0	0.0	0.0	1	0	10	179
May 29---	--	--	--	--	--	--	404
Jun 25---	--	--	--	--	--	--	1.3
Jul 15---	--	--	--	--	30	10	101
Aug 07---	--	--	--	--	--	--	25
Sep 17---	--	--	--	--	--	--	35
							.02

Table 4.--Summary of selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin--Continued

09250700 Morgan Gulch near Axial

Water-quality data, water year October 1981 to September 1982

Date	Alum- inum, total	Cadmium, total	Chro- mium, total	Cobalt, total	Copper, total
	Spe- cific con- duct- ance ($\mu\text{S}/\text{cm}$)	Arsenic, total	recov- erable ($\mu\text{g/L}$ as Al)	recov- erable ($\mu\text{g/L}$ as As)	recov- erable ($\mu\text{g/L}$ as Cd)
Apr 12---	1650	1600	2	<1	10
				<1	7

Date	Manga- nese, total	Mercury, total	Selen- ium, total	Zinc, total	Sedi- ment, sus- pended
	Iron, total	Lead, total	recov- erable ($\mu\text{g/L}$ as Pb)	recov- erable ($\mu\text{g/L}$ as Mn)	recov- erable ($\mu\text{g/L}$ as Hg)
Apr 12---	1700	<1	80	0.1	1
				30	159

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin

09244410 Yampa River below diversion, near Hayden

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	125	1250.78	1846.08	38.90	7300.00	165.12
Specific conductance (μS/cm)	113	269.40	115.83	50.00	600.00	10.90
pH (standard units)	88	7.76	0.44	6.80	8.60	0.05
Temperature (°C)	118	7.27	6.04	0.00	21.00	0.56
Phosphorus, total (mg/L as P)	81	0.07	0.05	0.01	0.24	0.01
Aluminum, total recoverable (μg/L as Al)	18	392.22	423.98	50.00	1300.00	99.93
Aluminum, suspended recoverable (μg/L as Al)	14	243.57	301.75	40.00	1200.00	80.65
Aluminum, dissolved (μg/L as Al)	15	48.00	36.10	10.00	100.00	9.32
Arsenic, total (μg/L as As)	18	1.22	0.43	1.00	2.00	0.10
Arsenic, suspended total (μg/L as As)	13	0.92	0.28	0.00	1.00	0.08
Arsenic, dissolved (μg/L as As)	15	1.40	0.91	1.00	4.00	0.24
Cadmium, total recoverable (μg/L as Cd)	19	8.63	9.97	0.00	20.00	2.29
Cadmium, suspended recoverable (μg/L as Cd)	13	6.08	5.79	0.00	18.00	1.61
Cadmium, dissolved (μg/L as Cd)	16	1.56	1.55	0.00	6.00	0.39
Chromium, total recoverable (μg/L as Cr)	18	6.39	8.71	0.00	20.00	2.05
Chromium, suspended recoverable (μg/L as Cr)	14	0.71	2.67	0.00	10.00	0.71
Chromium, dissolved (μg/L as Cr)	15	4.60	8.12	0.00	20.00	2.10
Cobalt, total recoverable (μg/L as Co)	1	100.00	-----	100.00	100.00	-----
Cobalt, suspended recoverable (μg/L as Co)	1	50.00	-----	50.00	50.00	-----
Cobalt, dissolved (μg/L as Co)	1	0.00	-----	0.00	0.00	-----
Copper, total recoverable (μg/L as Cu)	19	12.68	9.89	0.00	37.00	2.27
Copper, suspended recoverable (μg/L as Cu)	16	6.69	8.34	0.00	35.00	2.09
Copper, dissolved (μg/L as Cu)	16	4.13	4.57	0.00	20.00	1.14
Iron, total recoverable (μg/L as Fe)	10	365.00	209.62	70.00	680.00	66.29
Iron, suspended recoverable (μg/L as Fe)	2	80.00	98.99	10.00	150.00	70.00
Iron, dissolved (μg/L as Fe)	80	97.42	59.47	20.00	310.00	6.65
Lead, total recoverable (μg/L as Pb)	19	103.63	107.20	0.00	300.00	24.59
Lead, suspended recoverable (μg/L as Pb)	16	124.62	244.83	0.00	1000.00	61.21
Lead, dissolved (μg/L as Pb)	16	4.81	8.20	0.00	30.00	2.05
Manganese, total recoverable (μg/L as Mn)	19	46.32	18.62	10.00	80.00	4.27
Manganese, suspended recoverable (μg/L as Mn)	15	19.33	16.24	0.00	50.00	4.19
Manganese, dissolved (μg/L as Mn)	16	22.50	10.00	10.00	40.00	2.50
Mercury, total recoverable (μg/L as Hg)	19	0.43	0.46	0.00	2.10	0.11
Mercury, suspended recoverable (μg/L as Hg)	15	0.08	0.23	0.00	0.90	0.06
Mercury, dissolved (μg/L as Hg)	16	0.44	0.34	0.00	1.20	0.09
Selenium, total (μg/L as Se)	19	0.89	0.32	0.00	1.00	0.07
Selenium, suspended total (μg/L as Se)	15	0.20	0.41	0.00	1.00	0.11
Selenium, dissolved (μg/L as Se)	16	0.88	0.34	0.00	1.00	0.09
Zinc, total recoverable (μg/L as Zn)	18	35.56	31.48	10.00	110.00	7.42
Zinc, suspended recoverable (μg/L as Zn)	13	14.62	20.25	0.00	70.00	5.62
Zinc, dissolved (μg/L as Zn)	15	18.40	15.67	0.00	50.00	4.05
Sediment, suspended (mg/L)	87	48.76	87.05	0.00	648.00	9.33
Sediment, discharge, suspended (ton/d)	85	280.60	607.44	0.00	2650.00	65.89

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin--Continued

09246550 Yampa River below Elkhead Creek near Craig

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	38	1662.24	2671.22	70.00	9900.00	433.33
Specific conductance ($\mu\text{S}/\text{cm}$)	62	328.97	126.49	80.00	650.00	16.06
pH (standard units)	60	7.81	0.44	6.90	8.70	0.06
Temperature (°C)	62	8.30	7.29	0.00	22.00	0.93
Phosphorus, total (mg/L as P)	61	0.08	0.10	0.01	0.59	0.01
Aluminum, total recoverable ($\mu\text{g}/\text{L}$ as Al)	14	727.14	1056.87	70.00	3800.00	282.46
Aluminum, suspended recoverable ($\mu\text{g}/\text{L}$ as Al)	14	719.29	1060.78	50.00	3800.00	283.51
Aluminum, dissolved ($\mu\text{g}/\text{L}$ as Al)	15	44.67	36.03	10.00	100.00	9.30
Arsenic, total ($\mu\text{g}/\text{L}$ as As)	15	1.27	0.46	1.00	2.00	0.12
Arsenic, suspended total ($\mu\text{g}/\text{L}$ as As)	14	0.93	0.47	0.00	2.00	0.13
Arsenic, dissolved ($\mu\text{g}/\text{L}$ as As)	15	1.33	1.05	1.00	5.00	0.27
Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)	15	12.20	9.92	0.00	20.00	2.56
Cadmium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cd)	13	6.62	4.21	0.00	10.00	1.17
Cadmium, dissolved ($\mu\text{g}/\text{L}$ as Cd)	16	1.06	1.06	0.00	3.00	0.27
Chromium, total recoverable ($\mu\text{g}/\text{L}$ as Cr)	15	5.33	9.15	0.00	20.00	2.36
Chromium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cr)	15	1.73	3.69	0.00	10.00	0.95
Chromium, dissolved ($\mu\text{g}/\text{L}$ as Cr)	15	2.93	7.00	0.00	20.00	1.81
Cobalt, total recoverable ($\mu\text{g}/\text{L}$ as Co)	1	100.00	----	100.00	100.00	----
Cobalt, suspended recoverable ($\mu\text{g}/\text{L}$ as Co)	1	50.00	----	50.00	50.00	----
Cobalt, dissolved ($\mu\text{g}/\text{L}$ as Co)	1	0.00	----	0.00	0.00	----
Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	16	15.31	6.76	2.00	20.00	1.69
Copper, suspended recoverable ($\mu\text{g}/\text{L}$ as Cu)	16	6.69	4.78	0.00	19.00	1.20
Copper, dissolved ($\mu\text{g}/\text{L}$ as Cu)	16	3.88	4.59	0.00	20.00	1.15
Iron, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	10	613.00	665.80	70.00	2300.00	210.54
Iron, suspended recoverable ($\mu\text{g}/\text{L}$ as Fe)	2	105.00	91.92	40.00	170.00	65.00
Iron, dissolved ($\mu\text{g}/\text{L}$ as Fe)	60	95.50	80.45	10.00	510.00	10.39
Lead, total recoverable ($\mu\text{g}/\text{L}$ as Pb)	16	103.63	99.70	0.00	200.00	24.93
Lead, suspended recoverable ($\mu\text{g}/\text{L}$ as Pb)	16	51.50	48.58	0.00	100.00	12.14
Lead, dissolved ($\mu\text{g}/\text{L}$ as Pb)	16	2.38	5.37	0.00	22.00	1.34
Manganese, total recoverable ($\mu\text{g}/\text{L}$ as Mn)	16	71.88	80.43	20.00	360.00	20.11
Manganese, suspended recoverable ($\mu\text{g}/\text{L}$ as Mn)	16	52.50	74.16	10.00	320.00	18.54
Manganese, dissolved ($\mu\text{g}/\text{L}$ as Mn)	16	20.63	12.89	10.00	50.00	3.22
Mercury, total recoverable ($\mu\text{g}/\text{L}$ as Hg)	16	0.77	1.20	0.00	4.50	0.30
Mercury, suspended recoverable ($\mu\text{g}/\text{L}$ as Hg)	16	0.29	0.75	0.00	2.30	0.19
Mercury, dissolved ($\mu\text{g}/\text{L}$ as Hg)	16	0.49	0.51	0.00	2.20	0.13
Selenium, total ($\mu\text{g}/\text{L}$ as Se)	16	1.00	0.37	0.00	2.00	0.09
Selenium, suspended total ($\mu\text{g}/\text{L}$ as Se)	15	0.13	0.35	0.00	1.00	0.09
Selenium, dissolved ($\mu\text{g}/\text{L}$ as Se)	16	1.00	0.37	0.00	2.00	0.09
Zinc, total recoverable ($\mu\text{g}/\text{L}$ as Zn)	16	30.00	19.32	0.00	80.00	4.83
Zinc, suspended recoverable ($\mu\text{g}/\text{L}$ as Zn)	15	16.00	15.02	0.00	50.00	3.88
Zinc, dissolved ($\mu\text{g}/\text{L}$ as Zn)	16	14.25	11.50	0.00	40.00	2.88
Sediment, suspended (mg/L)	6	16.50	13.37	5.00	38.00	5.46
Sediment, discharge, suspended (ton/d)	4	16.60	17.35	3.80	41.00	8.68

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin--Continued

09247600 Yampa River below Craig

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	72	1690.14	2627.01	10.70	9990.00	309.60
Specific conductance ($\mu\text{S}/\text{cm}$)	60	333.40	139.08	78.00	670.00	17.96
pH (standard units)	60	8.00	0.55	7.00	9.00	0.07
Temperature (°C)	60	9.26	7.75	0.00	24.00	1.00
Phosphorus, total (mg/L as P)	60	0.11	0.07	0.01	0.27	0.01
Aluminum, total recoverable ($\mu\text{g}/\text{L}$ as Al)	12	963.33	1422.46	80.00	4800.00	410.63
Aluminum, suspended recoverable ($\mu\text{g}/\text{L}$ as Al)	10	1063.00	1500.41	30.00	4700.00	474.47
Aluminum, dissolved ($\mu\text{g}/\text{L}$ as Al)	13	40.00	24.49	10.00	80.00	6.79
Arsenic, total ($\mu\text{g}/\text{L}$ as As)	13	1.54	0.66	1.00	3.00	0.18
Arsenic, suspended total ($\mu\text{g}/\text{L}$ as As)	10	1.00	0.47	0.00	2.00	0.15
Arsenic, dissolved ($\mu\text{g}/\text{L}$ as As)	13	1.08	0.28	1.00	2.00	0.08
Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)	14	8.79	10.11	0.00	20.00	2.70
Cadmium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cd)	11	4.36	4.67	0.00	10.00	1.41
Cadmium, dissolved ($\mu\text{g}/\text{L}$ as Cd)	14	1.00	0.96	0.00	2.00	0.26
Chromium, total recoverable ($\mu\text{g}/\text{L}$ as Cr)	13	11.15	9.61	0.00	20.00	2.66
Chromium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cr)	12	4.17	6.69	0.00	20.00	1.93
Chromium, dissolved ($\mu\text{g}/\text{L}$ as Cr)	13	4.62	8.77	0.00	20.00	2.43
Cobalt, total recoverable ($\mu\text{g}/\text{L}$ as Co)	1	100.00	----	100.00	100.00	----
Cobalt, suspended recoverable ($\mu\text{g}/\text{L}$ as Co)	1	50.00	----	50.00	50.00	----
Cobalt, dissolved ($\mu\text{g}/\text{L}$ as Co)	1	0.00	----	0.00	0.00	----
Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	14	13.50	9.19	0.00	31.00	2.46
Copper, suspended recoverable ($\mu\text{g}/\text{L}$ as Cu)	13	7.77	6.94	0.00	27.00	1.93
Copper, dissolved ($\mu\text{g}/\text{L}$ as Cu)	14	3.21	3.24	0.00	13.00	0.87
Iron, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	8	1135.00	1692.18	70.00	5000.00	598.27
Iron, suspended recoverable ($\mu\text{g}/\text{L}$ as Fe)	2	75.00	49.50	40.00	110.00	35.00
Iron, dissolved ($\mu\text{g}/\text{L}$ as Fe)	58	91.38	71.04	10.00	370.00	9.33
Lead, total recoverable ($\mu\text{g}/\text{L}$ as Pb)	14	89.36	99.56	0.00	200.00	26.61
Lead, suspended recoverable ($\mu\text{g}/\text{L}$ as Pb)	13	40.62	47.15	0.00	99.00	13.08
Lead, dissolved ($\mu\text{g}/\text{L}$ as Pb)	14	2.00	3.11	0.00	12.00	0.83
Manganese, total recoverable ($\mu\text{g}/\text{L}$ as Mn)	14	71.43	41.30	20.00	170.00	11.04
Manganese, suspended recoverable ($\mu\text{g}/\text{L}$ as Mn)	13	53.08	36.14	0.00	120.00	10.02
Manganese, dissolved ($\mu\text{g}/\text{L}$ as Mn)	14	22.07	16.32	9.00	60.00	4.36
Mercury, total recoverable ($\mu\text{g}/\text{L}$ as Hg)	14	0.46	0.49	0.00	2.00	0.13
Mercury, suspended recoverable ($\mu\text{g}/\text{L}$ as Hg)	12	0.04	0.12	0.00	0.40	0.03
Mercury, dissolved ($\mu\text{g}/\text{L}$ as Hg)	14	0.42	0.40	0.00	1.60	0.11
Selenium, total ($\mu\text{g}/\text{L}$ as Se)	14	1.00	0.39	0.00	2.00	0.10
Selenium, suspended total ($\mu\text{g}/\text{L}$ as Se)	13	0.00	0.00	0.00	0.00	0.00
Selenium, dissolved ($\mu\text{g}/\text{L}$ as Se)	14	1.00	0.39	0.00	2.00	0.10
Zinc, total recoverable ($\mu\text{g}/\text{L}$ as Zn)	14	28.57	16.10	0.00	60.00	4.30
Zinc, suspended recoverable ($\mu\text{g}/\text{L}$ as Zn)	12	22.50	20.94	0.00	60.00	6.05
Zinc, dissolved ($\mu\text{g}/\text{L}$ as Zn)	14	7.57	9.67	0.00	20.00	2.58
Sediment, suspended (mg/L)	37	58.51	91.42	3.00	418.00	15.03
Sediment, discharge, suspended (ton/d)	32	905.59	2015.98	0.57	8530.00	356.38

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin--Continued

09249750 Williams Fork at mouth, near Hamilton

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	75	190.81	339.30	5.80	1350.00	39.18
Specific conductance ($\mu\text{S}/\text{cm}$)	61	421.46	135.49	128.00	860.00	17.35
pH (standard units)	62	8.08	0.35	7.10	8.70	0.04
Temperature (°C)	59	9.36	8.05	0.00	26.00	1.05
Phosphorus, total (mg/L as P)	59	0.10	0.27	0.00	1.90	0.03
Aluminum, total recoverable ($\mu\text{g}/\text{L}$ as Al)	13	1337.69	1671.71	90.00	4800.00	463.65
Aluminum, suspended recoverable ($\mu\text{g}/\text{L}$ as Al)	12	1045.00	1368.83	80.00	4400.00	395.15
Aluminum, dissolved ($\mu\text{g}/\text{L}$ as Al)	13	43.46	37.94	0.00	100.00	10.52
Arsenic, total ($\mu\text{g}/\text{L}$ as As)	13	1.69	0.63	1.00	3.00	0.17
Arsenic, suspended total ($\mu\text{g}/\text{L}$ as As)	12	1.17	0.58	0.00	2.00	0.17
Arsenic, dissolved ($\mu\text{g}/\text{L}$ as As)	13	1.15	0.38	1.00	2.00	0.10
Cadmium, total recoverable ($\mu\text{g}/\text{L}$ as Cd)	14	8.86	10.04	0.00	20.00	2.68
Cadmium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cd)	12	4.67	4.74	0.00	10.00	1.37
Cadmium, dissolved ($\mu\text{g}/\text{L}$ as Cd)	14	1.29	0.91	0.00	2.00	0.24
Chromium, total recoverable ($\mu\text{g}/\text{L}$ as Cr)	13	10.00	11.55	0.00	30.00	3.20
Chromium, suspended recoverable ($\mu\text{g}/\text{L}$ as Cr)	13	5.77	9.97	0.00	30.00	2.76
Chromium, dissolved ($\mu\text{g}/\text{L}$ as Cr)	13	5.00	8.66	0.00	20.00	2.40
Cobalt, total recoverable ($\mu\text{g}/\text{L}$ as Co)	1	100.00	----	100.00	100.00	----
Cobalt, suspended recoverable ($\mu\text{g}/\text{L}$ as Co)	1	50.00	----	50.00	50.00	----
Cobalt, dissolved ($\mu\text{g}/\text{L}$ as Co)	1	0.00	----	0.00	0.00	----
Copper, total recoverable ($\mu\text{g}/\text{L}$ as Cu)	14	15.14	6.97	0.00	20.00	1.86
Copper, suspended recoverable ($\mu\text{g}/\text{L}$ as Cu)	14	7.07	4.39	0.00	15.00	1.17
Copper, dissolved ($\mu\text{g}/\text{L}$ as Cu)	14	3.36	2.56	0.00	8.00	0.68
Iron, total recoverable ($\mu\text{g}/\text{L}$ as Fe)	8	1511.25	1921.72	120.00	5600.00	679.43
Iron, suspended recoverable ($\mu\text{g}/\text{L}$ as Fe)	3	236.67	171.56	80.00	420.00	99.05
Iron, dissolved ($\mu\text{g}/\text{L}$ as Fe)	58	59.66	51.40	0.00	250.00	6.75
Lead, total recoverable ($\mu\text{g}/\text{L}$ as Pb)	14	91.79	97.39	0.00	200.00	26.03
Lead, suspended recoverable ($\mu\text{g}/\text{L}$ as Pb)	14	46.86	45.88	0.00	100.00	12.26
Lead, dissolved ($\mu\text{g}/\text{L}$ as Pb)	14	2.21	2.52	0.00	8.00	0.67
Manganese, total recoverable ($\mu\text{g}/\text{L}$ as Mn)	14	77.14	69.44	10.00	230.00	18.56
Manganese, suspended recoverable ($\mu\text{g}/\text{L}$ as Mn)	14	60.86	69.75	0.00	220.00	18.64
Manganese, dissolved ($\mu\text{g}/\text{L}$ as Mn)	14	16.93	12.81	8.00	50.00	3.42
Mercury, total recoverable ($\mu\text{g}/\text{L}$ as Hg)	14	0.49	0.56	0.00	2.30	0.15
Mercury, suspended recoverable ($\mu\text{g}/\text{L}$ as Hg)	13	0.08	0.20	0.00	0.70	0.05
Mercury, dissolved ($\mu\text{g}/\text{L}$ as Hg)	14	0.42	0.40	0.00	1.60	0.11
Selenium, total ($\mu\text{g}/\text{L}$ as Se)	14	1.00	0.39	0.00	2.00	0.10
Selenium, suspended total ($\mu\text{g}/\text{L}$ as Se)	14	0.36	0.50	0.00	1.00	0.13
Selenium, dissolved ($\mu\text{g}/\text{L}$ as Se)	14	0.93	0.27	0.00	1.00	0.07
Zinc, total recoverable ($\mu\text{g}/\text{L}$ as Zn)	14	36.43	31.77	0.00	130.00	8.49
Zinc, suspended recoverable ($\mu\text{g}/\text{L}$ as Zn)	12	21.67	28.23	0.00	100.00	8.15
Zinc, dissolved ($\mu\text{g}/\text{L}$ as Zn)	14	10.43	12.07	0.00	30.00	3.23
Sediment, suspended (mg/L)	46	185.30	452.50	0.00	2710.00	66.72
Sediment, discharge, suspended (ton/d)	40	380.07	1613.85	0.00	9880.00	255.17

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin--Continued

09250400 Good Spring Creek at Axial

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	70	7.29	47.76	0.02	400.00	5.71
Specific conductance (μS/cm)	42	1567.14	230.81	1100.00	2320.00	35.62
pH (standard units)	32	8.17	0.15	7.90	8.80	0.03
Temperature (°C)	62	9.87	7.40	0.00	25.00	0.94
Phosphorus, total (mg/L as P)	3	0.05	0.05	0.02	0.10	0.03
Aluminum, total recoverable (μg/L as Al)	1	9500.00	-----	9500.00	9500.00	-----
Aluminum, suspended recoverable (μg/L as Al)	0	-----	-----	-----	-----	-----
Aluminum, dissolved (μg/L as Al)	0	-----	-----	-----	-----	-----
Arsenic, total (μg/L as As)	0	-----	-----	-----	-----	-----
Arsenic, suspended total (μg/L as As)	0	-----	-----	-----	-----	-----
Arsenic, dissolved (μg/L as As)	9	1.89	1.69	0.00	5.00	0.56
Cadmium, total recoverable (μg/L as Cd)	2	14.50	7.78	9.00	20.00	5.50
Cadmium, suspended recoverable (μg/L as Cd)	1	10.00	-----	10.00	10.00	-----
Cadmium, dissolved (μg/L as Cd)	10	1.20	1.03	0.00	2.00	0.33
Chromium, total recoverable (μg/L as Cr)	1	9.00	-----	9.00	9.00	-----
Chromium, suspended recoverable (μg/L as Cr)	0	-----	-----	-----	-----	-----
Chromium, dissolved (μg/L as Cr)	2	10.00	14.14	0.00	20.00	10.00
Cobalt, total recoverable (μg/L as Co)	2	56.00	62.23	12.00	100.00	44.00
Cobalt, suspended recoverable (μg/L as Co)	1	50.00	-----	50.00	50.00	-----
Cobalt, dissolved (μg/L as Co)	4	0.50	1.00	0.00	2.00	0.50
Copper, total recoverable (μg/L as Cu)	2	13.00	9.90	6.00	20.00	7.00
Copper, suspended recoverable (μg/L as Cu)	1	9.00	-----	9.00	9.00	-----
Copper, dissolved (μg/L as Cu)	9	3.33	3.84	0.00	13.00	1.28
Iron, total recoverable (μg/L as Fe)	2	2095.00	2694.08	190.00	4000.00	1905.00
Iron, suspended recoverable (μg/L as Fe)	1	180.00	-----	180.00	180.00	-----
Iron, dissolved (μg/L as Fe)	19	45.26	42.74	10.00	200.00	9.80
Lead, total recoverable (μg/L as Pb)	2	110.00	127.28	20.00	200.00	90.00
Lead, suspended recoverable (μg/L as Pb)	1	100.00	-----	100.00	100.00	-----
Lead, dissolved (μg/L as Pb)	10	3.30	3.23	0.00	11.00	1.02
Manganese, total recoverable (μg/L as Mn)	2	160.00	197.99	20.00	300.00	140.00
Manganese, suspended recoverable (μg/L as Mn)	1	10.00	-----	10.00	10.00	-----
Manganese, dissolved (μg/L as Mn)	20	84.50	58.53	10.00	180.00	13.09
Mercury, total recoverable (μg/L as Hg)	1	0.50	-----	0.50	0.50	-----
Mercury, suspended recoverable (μg/L as Hg)	1	0.00	-----	0.00	0.00	-----
Mercury, dissolved (μg/L as Hg)	10	0.37	0.21	0.00	0.50	0.07
Selenium, total (μg/L as Se)	1	2.00	-----	2.00	2.00	-----
Selenium, suspended total (μg/L as Se)	1	0.00	-----	0.00	0.00	-----
Selenium, dissolved (μg/L as Se)	8	2.00	0.53	1.00	3.00	0.19
Zinc, total recoverable (μg/L as Zn)	2	24.00	5.66	20.00	28.00	4.00
Zinc, suspended recoverable (μg/L as Zn)	1	10.00	-----	10.00	10.00	-----
Zinc, dissolved (μg/L as Zn)	10	13.00	9.49	0.00	20.00	3.00
Sediment, suspended (mg/L)	66	143.71	131.38	12.00	812.00	16.17
Sediment, discharge, suspended (ton/d)	66	7.34	52.37	0.00	426.00	6.45

Table 5.--Statistical summary of water-quality data collected at selected surface-water gaging stations in the southern Yampa River basin--Continued

09251000 Yampa River near Maybell

Parameter	N	Mean	Standard deviation	Minimum value	Maximum value	Standard error of mean
Streamflow, instantaneous (ft ³ /s)	200	1758.22	2911.78	31.80	13,600.00	205.89
Specific conductance (μS/cm)	774	422.59	178.54	100.00	1,100.00	6.42
pH (standard units)	768	7.70	0.38	6.60	8.90	0.01
Temperature (°C)	418	9.43	7.97	0.00	28.00	0.39
Phosphorus, total (mg/L as P)	93	0.12	0.20	0.01	1.60	0.02
Aluminum, total recoverable (μg/L as Al)	2	2600.00	1555.63	1500.00	3,700.00	1100.00
Aluminum, suspended recoverable (μg/L as Al)	0	-----	-----	-----	-----	-----
Aluminum, dissolved (μg/L as Al)	7	30.00	14.14	20.00	60.00	5.35
Arsenic, total (μg/L as As)	30	1.73	1.64	0.00	9.00	0.30
Arsenic, suspended total (μg/L as As)	21	1.43	1.91	0.00	9.00	0.42
Arsenic, dissolved (μg/L as As)	38	1.16	0.37	1.00	2.00	0.06
Cadmium, total recoverable (μg/L as Cd)	30	8.40	9.65	0.00	20.00	1.76
Cadmium, suspended recoverable (μg/L as Cd)	19	5.47	4.51	0.00	10.00	1.04
Cadmium, dissolved (μg/L as Cd)	39	1.31	0.80	0.00	3.00	0.13
Chromium, total recoverable (μg/L as Cr)	29	8.97	8.60	0.00	20.00	1.60
Chromium, suspended recoverable (μg/L as Cr)	23	3.48	6.47	0.00	20.00	1.35
Chromium, dissolved (μg/L as Cr)	38	6.50	8.06	0.00	20.00	1.31
Cobalt, total recoverable (μg/L as Co)	30	41.27	48.84	0.00	100.00	8.92
Cobalt, suspended recoverable (μg/L as Co)	19	29.37	24.66	0.00	50.00	5.66
Cobalt, dissolved (μg/L as Co)	39	2.13	3.25	0.00	20.00	0.52
Copper, total recoverable (μg/L as Cu)	30	26.43	64.47	2.00	360.00	11.77
Copper, suspended recoverable (μg/L as Cu)	29	17.97	64.49	0.00	350.00	11.97
Copper, dissolved (μg/L as Cu)	39	5.41	9.12	0.00	58.00	1.46
Iron, total recoverable (μg/L as Fe)	68	763.24	1916.21	20.00	13,000.00	232.38
Iron, suspended recoverable (μg/L as Fe)	16	1298.75	1947.61	10.00	6,200.00	486.90
Iron, dissolved (μg/L as Fe)	177	73.50	61.92	3.00	370.00	4.65
Lead, total recoverable (μg/L as Pb)	30	83.67	96.70	0.00	200.00	17.66
Lead, suspended recoverable (μg/L as Pb)	27	42.52	47.18	0.00	100.00	9.08
Lead, dissolved (μg/L as Pb)	39	2.33	3.74	0.00	23.00	0.60
Manganese, total recoverable (μg/L as Mn)	30	64.67	70.45	20.00	350.00	12.86
Manganese, suspended recoverable (μg/L as Mn)	29	51.38	63.40	0.00	300.00	11.77
Manganese, dissolved (μg/L as Mn)	71	14.11	10.62	0.00	50.00	1.26
Mercury, total recoverable (μg/L as Hg)	29	0.49	0.94	0.00	4.90	0.18
Mercury, suspended recoverable (μg/L as Hg)	23	0.13	0.43	0.00	1.90	0.09
Mercury, dissolved (μg/L as Hg)	39	0.33	0.64	0.00	4.00	0.10
Selenium, total (μg/L as Se)	31	1.19	1.19	0.00	7.00	0.21
Selenium, suspended total (μg/L as Se)	25	0.20	0.41	0.00	1.00	0.08
Selenium, dissolved (μg/L as Se)	39	1.33	1.18	0.00	7.00	0.19
Zinc, total recoverable (μg/L as Zn)	29	37.24	34.42	0.00	150.00	6.39
Zinc, suspended recoverable (μg/L as Zn)	24	26.21	29.61	0.00	130.00	6.04
Zinc, dissolved (μg/L as Zn)	39	12.74	15.33	0.00	70.00	2.45
Sediment, suspended (mg/L)	144	167.74	315.48	2.00	2,080.00	26.29
Sediment, discharge, suspended (ton/d)	129	2650.25	6940.21	0.93	47,200.00	611.05